Chapter 13 — Flood Hazard Area Control

Subchapter 1. General Provisions

7:13-1.1 Purpose and Scope

(a) The general purpose of this chapter is to control development in areas within the jurisdiction of this chapter in order to avoid or mitigate the detrimental effects of development upon the environment and the safety, health and general welfare of the people of the State.

(b) Areas subject to inundation by flood waters are called flood plains. For the purpose of this chapter flood plains are divided into two classes, delineated and non-delineated.

1. Delineated flood plains have been established and officially adopted ("delineated") by the State of New Jersey. Each flood plain has been divided into a floodway and a flood fringe area. The procedure for delineating flood plains is established by N.J.S.A. 58:16A-52.

2. Other flood plains, and the watercourses that create them, are referred to as non-delineated.

(c) The specific intent of this chapter is to minimize potential on and off site damage to public or private property caused by development which, at times of flood, subject structures to flooding and increase flood heights and/or velocities both upstream and downstream. These rules are also intended to safeguard the public from the dangers and damages caused by materials being swept onto nearby or downstream lands, to protect and enhance the public's health and welfare by minimizing the degradation of water quality from point and non point pollution sources and to protect wildlife and fisheries by preserving and enhancing water quality and the environment associated with the flood plain and the watercourses that create them.

(d) Without proper controls, development in the flood plain and the watercourses that create them may adversely affect the flood carrying capacity of these areas, subject new facilities to flooding, reduce natural flood storage that the flood plain provides, increase the volume of storm water runoff, degrade the water quality of the receiving water body, and result in increased sedimentation, erosion or other environmental damage. Any development in areas regulated by this chapter must conform to criteria which, as outlined in this chapter, depend upon the characteristics of the area and the type of activity involved.

(e) The rules in this chapter govern minimum standards for development within areas within the jurisdiction of this chapter. The Department shall administer permits pursuant to this chapter, except as provided in N.J.A.C. 7:13-5.3.

The following words and terms, when used in this chapter, shall have the following meanings unless the context clearly indicates otherwise.

"Acts" means the Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and N.J.S.A. 13:1D-1 et seq.

"Alteration" means any manmade changes to lands located within the jurisdiction of this chapter.

"Anadromous fish" means fish which travel from salt water to fresh water or up waterways to spawn.

"Applicant" means a person who submits an application for a permit or other decision from the Department under this chapter.

"Application" means the completed Land Use Regulation Program (LURP) permit application form, as defined at N.J.A.C. 7:7-1.3, along with the appropriate fee, plans supporting calculations and reports as required by this chapter.

"Bank" means the inclined sides of the channel.

"Bed" means the floor of the channel.

"Cascades" means sections of beds consisting primarily of bedrock, with little rubble, gravel, or other such material present. The current is usually more swift than in riffles.

"Category One waters" means those waters designated in the tables in N.J.A.C. 7:9B-4.15(c) through (h) for the purposes of implementing the Antidegradation Polices in N.J.A.C. 7:9B-4. These waters may include, but are not limited to:

1. Waters originating wholly within Federal, interstate, State, county, or municipal parks, forests, fish and wildlife lands, and other special holdings that have not been designated as FW1 in N.J.A.C. 7:9B-4;

2. Waters classified as FW2 Trout Production waters and their tributaries;

3. Surface waters classified as FW2 Trout Maintenance or FW2 nontrout that are upstream of waters classified as FW2 Trout Production;

4. Shellfish waters of exceptional resource value; or,

5. Other waters and their tributaries that flow through, or border, Federal, State, county or municipal parks, forests, fish and wildlife lands, and other special holdings.

"Central Passaic Basin" means the flood plain along:

1. Central Passaic River: Extending from Little Falls at Beatties Dam upstream to Route 202 in Bernards and Harding Townships;

2. Pompton River: Entire river;

3. Ramapo River: Extending from its confluence with the Pompton River upstream to Pompton Lakes Dam;

4. Pequannock and Wanaque Rivers: Extending from their confluence with the Pompton River upstream to Paterson-Hamburg Turnpike;

5. Dead River: Extending from its confluence with the Passaic River upstream to Liberty Corner Road in Bernards Township;

6. Harrison Brook: Extending from its confluence with the Dead River upstream to Lake Road in Bernards Township;

7. Rockaway River: Extending from its confluence with the Passaic River upstream to the Jersey City Reservoir (Boonton Reservoir);

8. Whippany River: Extending from its confluence with the Passaic River upstream to Route 10;

9. Black Brook: entire reach; and

10. Beaver Dam Brook: Including East and West Ditches from Pompton River to Jacksonville Road in Lincoln Park.

"Channel" means the well-defined bed and banks of a watercourse which confine and conduct flowing water continuously or intermittently.

"Channelization" means any artificial reconstruction of the bed and/or banks such as by straightening, lining, deepening or piping.

"Commissioner" means the Commissioner of the Department of Environmental Protection.

"Dam" means any artificial dike, levy or other barrier together with appurtenant works, which is constructed for the primary purpose of impounding water on a permanent or temporary basis, that raises the water level five feet or more above its usual mean low water height when measured from the downstream toe-of-dam to the emergency spillway crest or in the absence of an emergency spillway, to the top of dam. Low dams raise the water level less than five feet.

"Delegated agency" means a county agency to which the Department has delegated its power to approve or disapprove certain classes of applications under this chapter or enforce certain provisions of this chapter.

"Department" means the New Jersey Department of Environmental Protection.

"Detention basin" means an impoundment area created by constructing an embankment, excavating a pit or both for the purpose of temporarily storing storm water.

"Development" means any construction activity or other manmade land disturbance.

"Encroachment Line" means a line, described by metes and bounds, which defines the boundary between the floodway and flood fringe area in a non-delineated flood plain and customarily marks the limit of fill to be placed in a delineated flood plain.

"Erosion" means detachment and movement of soil or rock fragments by water, wind, ice or gravity.

"Excavation" means removal or recovery, by any means whatsoever, of minerals, mineral substances or organic substance, other than vegetation, from the water, land surface or beneath the land surface, whether exposed or submerged.

"Fill" means any material placed or deposited within the flood plain or the watercourses that create them which will displace floodwaters.

"Fish habitat enhancement device" means a device consisting of deflectors, low-flow channel structures, mud sills, boulders, felled shoreline trees, tire structures, brush, rubble reefs, or spawning/nursery structures as developed and approved by the Department.

"Flats" means sections of channel with current too slow to be classified as riffle and too shallow to be classified as a pool. The bottom usually consists of sand or finer materials.

"Flood carrying capacity" means the ability of a watercourse or flood plain to transport flood waters, as determined by its shape, cross-sectional area, bed slope, coefficient of hydraulic friction, and upstream and downstream channel configurations, as used in accepted engineering practices.

"Flood damage potential" means the susceptibility to damage by potential floods at that site, as well as a given site's potential to increase off-site flooding.

"Flood fringe" means that portion of the flood plain outside of the floodway or encroachment lines.

"Flood hazard area design flood" means the flood used in State Adopted Flood Studies. It is the flood resulting from the 100-year flood discharge increased by 25 percent.

"Flood hazard design elevation" means the elevation of the flood hazard area design flood.

"Flood plain" means the area inundated by the regulatory flood including the watercourse that creates it.

"Flood proofing" means any combination of structural and nonstructural design features, additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, structures and their contents.

"Floodway" means the channel and portions of the flood plain adjoining the channel which are reasonably required to carry and discharge the regulatory flood. For the purpose of this chapter the term floodway shall refer to both the delineated floodway on State Adopted Studies and the area between the encroachment lines located on both sides of a non-delineated watercourse.

"Fluvial flood" means a flood which is caused entirely by runoff from rainfall in the upstream drainage area and is not influenced by the tide or tidal surge.

"Freshwater wetland" or "wetland" means an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation; provided, however, that the Department, in designating a wetland, shall use the three-parameter approach (that is, hydrology, soils and vegetation) enumerated in The Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989), and any subsequent amendments thereto.

"FW" means the general surface water classification applied to fresh waters in the Department's Surface Water Quality Standards, N.J.A.C. 7:9B.

"FW1" means the waters designated as FW1 in the Department's Surface Water Quality Standards, N.J.A.C. 7:9B.

"FW2" means the general surface water classification applied in the Department's Surface Water Quality Standards, N.J.A.C. 7:9B, to those fresh waters that are not designated as FW1 or Pinelands waters.

"Hazardous materials" means those materials as defined by or pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:19-23.11 et seq., or pollutants as defined by the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.

"Low water" means the water level characteristic of a channel during low flow conditions.

"Major project" means that class of project defined as major in the 90-Day Construction Permit Rules (N.J.A.C. 7:1C).

"Manual" means the latest version of the Technical Manual for this chapter published by the Department.

"Minor project" means that class of project defined as minor in 90-Day Construction Permit Rules (N.J.A.C. 7:1C).

"Mitigation" means activities carried out in order to compensate for loss or disturbance of the environment caused by regulated activities and may include restoration, creation, enhancement or donation of land of appropriate environmental characteristics.

"Net fill" means the volume of fill which will displace flood waters left after the total volume of cuts, which will provide additional flood storage, made on the project site has been subtracted from the total volume of fill which will displace flood waters placed on the project site.

"90-Day Construction Permit Rules" means the rules appearing in N.J.A.C. 7:1C.

"Non-regulated use" means any use not subject to the provisions of this chapter.

"Non-trout waters" means the non-trout waters identified in the Department's Surface Water Quality Standards (N.J.A.C. 7:9B).

"Obstruction" means, but is not limited to, any structure, fill or other material placed in the flood plain which may impede, retard, or change the direction of the flow of water either by itself or by catching or collecting debris carried by such water or that is placed where the flow of water might carry the same downstream and constitute a hazard to life or property.

"One hundred-year flood" means a flood that is estimated to have a one percent chance, or one chance in a hundred, of being equaled or exceeded in any one year.

"Perennial watercourse" means any watercourse mapped as perennial on either the 7½ inch topographic maps published by the U.S. Geological Survey or the detailed map sheets in County Soil Surveys published by the U.S. Department of Agriculture, Soil Conservation Service, unless site specific information to the contrary is presented to and accepted by the Department.

"Permit" means a permit issued by the Department to engage in activities regulated under this chapter.

"Person" means corporations, companies, associations, societies, firms, partnerships and joint stock companies, as well as individuals, the Federal government, the State, and all political subdivisions of the State or any agencies or instrumentality thereof.

"Pools" means sections of channel which are deeper and have appreciably slower current than areas immediately upstream or downstream. The bed is usually a mixture of silt and coarse sand; the water depth usually exceeds two feet.

"Prohibited use" means a use which fails to comply with the requirements of this chapter and which shall not be allowed except in the case of exceptional and undue hardship as defined in N.J.A.C. 7:13-2.2.

"Public hearing" means a public meeting convened to allow the public to comment on the project proposed in the application.

"Regulatory flood" means the 100-year flood along non-delineated watercourses or the flood hazard area design flood along delineated watercourses.

"Riffles" means sections of a channel containing gravel or rubble in which surface water is at least slightly turbulent and current is swift enough that the surface of the gravel and rubble is kept fairly free from sand and silt.

"Retention basin" means an impoundment area with a permanent pool made by constructing an embankment, or excavating a pit, or both for the purpose of temporarily storing storm water.

"Soil Conservation District" means a political subdivision of the State of New Jersey authorized under N.J.S.A. 4:24-1 et seq.

"Solid waste" means garbage, sludge, refuse, trash, rubbish, debris or other discarded materials.

"State Soil Conservation Committee" means the agency created pursuant to N.J.S.A. 4:24-1 et seq.

"Stream encroachment" means any manmade alteration, construction, development or other activity within the areas within the jurisdiction of this chapter.

"Stream Encroachment Permit" means a permit issued by the Department, or delegated agency under the provisions of the Acts.

"Structure" means any assembly of materials above or below the surface of land or water including, but not limited to, buildings, fences, dams, fills, levees, bulkheads, dikes, jetties, embankments, causeways, culverts, roads, railroads, bridges and the facilities of any utility or governmental agency. Trees and vegetation are not structures.

"Threatened or endangered species" means those species of animals listed pursuant to "The Endangered and Nongame Species Conservation Act," N.J.S.A. 23:2A-1 et seq., identified in N.J.A.C. 7:25-4.13, and 7:25-4.17, and those species of plants identified in the Endangered Plant Species List, N.J.A.C. 7:5C-5.1.

"Tidal flood" means a flood caused by the tide backing up a channel.

"Trout-associated watercourses" means watercourses that are:

1. Trout production waters;

2. Trout maintenance waters;

3. Non-trout waters upstream from trout production waters (with or without intervening trout maintenance waters);

4. Non-trout waters less than one mile upstream from trout maintenance waters that are not upstream from trout production waters; or

5. Tributaries flowing into trout production or trout maintenance waters which will take the classification of the waters they flow into.

"Trout maintenance waters" means the trout maintenance waters identified in the Department's Surface Water Quality Standards (N.J.A.C. 7:9B).

"Trout production waters" means the trout production waters identified in the Department's Surface Water Quality Standards (N.J.A.C. 7:9B).

"Trout stocked waters" means waters that are stocked with trout by the Department's Division of Fish, Game and Wildlife, as listed in N.J.A.C. 7:25-6 and amendments thereto as adopted by the New Jersey Fish and Game Council.

"Upstream/downstream" refers to direction with respect to a fixed point in a waterway.

"Watercourse" means a path which conveys surface water runoff. Flow paths with a total contributory drainage area less than 50 acres must have definable bed and banks to be considered a watercourse.

7:13-1.3 Applicability

(a) All development within the larger of the following areas shall require a permit under this chapter unless specifically exempted as provided in this chapter:

1. The flood plain, as defined at N.J.A.C. 7:13-1.2;

2. Twenty-five feet back from the top of the channel bank; or

3. Fifty feet back from the top of the channel bank along waters

i. Containing deposits of acid-producing soils as defined in N.J.A.C. 7:13-5.10;

ii. Classified as Category One, FW-1 trout-associated, or, FW-2 trout-associated;

iii. Which are a critical part of the habitat supporting a threatened or endangered species of plant or a current population of any species of threatened or endangered animal on a permanent or temporary basis, for any purpose such as resting, breeding or feeding, during any portion of its life-cycle; or

iv. Located within documented, historic habitat for threatened or endangered species of animals, which habitat remains suitable for breeding, resting or feeding by those species of animal during any portion of its life-cycle.

(b) New Jersey's geography and location along the Atlantic coastline subjects the State to both tidal and fluvial flooding. The effects of development on flood elevations vary depending on the type of flooding and the area in which it occurs. For the purpose of this chapter, three areas of concern have been identified based on the type of flooding and the impact of development in that particular area. These areas are as follows:

1. Tidal: Tidal flooding is the result of higher than normal tides which in turn inundate low lying coastal areas. The 100-year tidal flood elevation will not be affected by development. Therefore, certain areas in which the regulatory flood is the 100-year tidal flood will not be regulated under this chapter. The elevation of the 100-year tidal flood, which varies along the coast, can be obtained from the Department.

i. Tidal water bodies not regulated under this chapter shall include, but not be limited to, the Atlantic Ocean and all water bodies named on the U.S. Geological Survey 7½ inch topographic maps as "bays," "canals," "coves," "guts," "harbors," "inlets," "sounds," "thorofares," and "channels," except for: the portion of the Delaware River near Camden called "Back Channel," all man-made lagoons and canals and all sections of the "Intracoastal Waterway."

ii. The lower reach of a watercourse that flows into a tidal water body will be subject to the same flooding characteristics as the tidal water body. Subparagraph (b)1ii(1) through (16) below identifies reaches along specific watercourses that will be considered tidal for the purposes of this chapter and, therefore, not regulated under this chapter. Along those watercourses not specifically identified in (b)1ii(1) through (16) below that flow into tidal waterbodies listed in (b)1 above, the reach between the mouth of the watercourse and the closer of either the first bridge or culvert upstream or the point upstream where the regulatory flood exceeds the 100-year tidal elevation will be considered a tidal water body for the purposes of this chapter and, therefore, not regulated under this chapter.

(1) Arthur Kill (Middlesex Co./Union Co.): entire reach;

(2) Comptons Creek (Monmouth Co.) Raritan Bay to Campbell Avenue;

(3) Deal Lake (Monmouth Co.) Atlantic Ocean to Wickapecko Drive;

(4) Hackensack River (Hudson Co.) Newark Bay to the Pulaski Skyway;

(5) Hudson River (Bergen Co./Hudson Co.);

(6) Manasquan River (Monmouth Co./Ocean Co.): Atlantic Ocean to Route 70;

(7) Metedeconk River (Ocean Co.): Barnegat Bay to Route 70;

(8) Navesink River (Monmouth Co.): Shrewsbury River to Coopers Bridge;

(9) Passaic River (Essex Co./Hudson Co.) Newark Bay to the Pulaski Skyway;

(10) Raritan River (Middlesex Co.): Raritan Bay to The New Jersey Turnpike;

(11) Shark River (Monmouth Co.): Atlantic Ocean to confluence with Laurel Gully Brook;

(12) Shrewsbury River (Monmouth Co.): Sandy Hook Bay to Seven Bridge Bay;

(13) Waretown Creek (Ocean Co.) Atlantic Ocean to Route 9;

(14) Whale Brook (Middlesex Co./Monmouth Co.): Raritan Bay to Route 35;

(15) Wreck Pond (Monmouth Co.) Atlantic Ocean to Route 71; and

(16) All tidal watercourses flowing into Raritan Bay, north of Route 36 in Monmouth County.

2. Tidally influenced: Tidally influenced areas are subject to both tidal flooding and flooding caused by the tidal wave traveling up a watercourse. Since the Department is concerned with environmental impacts in the flood plain and obstructions to flow in the floodway produced by development in these areas the engineering standards for the flood fringe will not apply in these areas.

3. Fluvial: Fluvial flooding is the result of storm water runoff which exceeds the capacity of the watercourse to carry the flow without endangering life or property. In this area, development may affect upstream and/or downstream flood elevations by increasing or decreasing obstructions to flow. Therefore, in this area, all of the requirements of this chapter shall apply.

(c) This chapter shall not apply to development along the Delaware and Raritan Canal except insofar as such activities affect watercourses that flow into, over, under, or parallel to the canal.

(d) This chapter shall not apply to lands that are regulated pursuant to "The Wetlands Act of 1970," N.J.S.A. 13:9A-1 et seq. or to lands located within tidally influenced flood plains that are regulated pursuant to the Waterfront and Harbor Facilities Act, N.J.S.A. 12:5-1 et seq. or the Coastal Area Facilities Review Act (CAFRA), N.J.S.A. 13:19-1 et seq.

(e) Non-regulated uses in the floodway are as follows:

1. For purposes of this section, non-regulated uses are uses which are not prohibited in N.J.A.C. 7:13-2.2, and which:

i. Do not further obstruct flood flow, or in any way reduce the cross-sectional area of the floodway open to the flow of water during the regulatory flood, unless the obstruction will be insignificant, such as the those activities listed in (e)2 below;

ii. Do not require the erection of structures, except as specifically noted in (e)2 below;

iii. Do not require channel modification or relocation;

iv. Do not alter the cross-sectional area of a water-control structure such as a bridge, culvert or dam that is open to flood waters during the regulatory flood;

v. Do not increase off-site flood damage potential by raising flood elevations off of the property on which the use is proposed by more than two-tenths of a foot or 2.4 inches;

vi. Do not adversely affect those areas described in (a) above;

vii. Do not cause or contribute to a violation of any applicable State water quality standard or otherwise adversely affect water quality; and

viii. Are undertaken with the land owner's express written permission.

2. Non-regulated uses which satisfy the conditions of (e)1i and ii above may include, but are not limited to:

i. Lawns, gardens and areas specifically designed and intended for use by children;

ii. Areas specifically marked and designated for private and public recreation such as: playing fields with backstops and/or open bleachers, picnic grounds, swimming areas, parks, wildlife and nature preserves, game farms, hunting and fishing

areas, boat launching ramps constructed at or below grade, shooting preserves, bicycle paths, hiking and horseback riding trails, as well as in ground swimming pools and associated fences for public safety provided that the pool is constructed at or below existing grade and that the fence is open to allow flood waters to pass through it, is no higher than the minimum height required by the BOCA construction code for a fence around a pool, and is placed so as to minimize the obstruction to flow to the maximum extent possible;

iii. Hand removal of debris along a reach of the watercourse, or the removal of individual major obstructions in the channel, such as a fallen tree or other large or heavy object, such as abandoned vehicles, furniture or other trash that cannot be removed by hand. No equipment shall be allowed in the channel unless specifically approved in writing by the Department;

iv. Open decks attached to residential structures, properly anchored in accordance with the Uniform Construction Code and all applicable local building codes;

v. Minor repair, maintenance or replacement-in-kind of existing roads, bridges, culverts, gauging structures (including weirs) or retaining walls which will not change the cross-sectional area open to flow during the regulatory flood or increase the footprint of the structure;

vi. Agriculture uses such as general cultivation, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, forestry, sod farming, wild crop harvesting and on-going farming operations;

(1) Specific soil conservation practices such as terracing, construction of diversions, subsurface tile drainage and the construction of grassed waterways and dug ponds will be considered non-regulated uses only when approved in writing by the appropriate County Soil Conservation District Office and the local U.S.D.A. Soil Conservation Service;

vii. Docks and boathouses along bodies of water labeled as a lake, reservoir or pond on the USGS Quadrangle Maps that are built on pilings and remain open underneath to allow water to pass freely. For boathouses the floor must be above the regulatory flood elevation;

viii. Utility poles or towers which cannot be located outside of the floodway. Poles and towers must be properly anchored to withstand the structural loads and stresses (both hydrostatic and hydrodynamic) from flooding equal to the regulatory flood elevation;

ix. Utilities "jacked" under watercourses that do not disturb the channel;

x. Placement of fish habitat enhancement devices in lakes, ponds, reservoirs and impoundments performed by or approved by the Division of Fish, Game and Wildlife, Bureau of Freshwater Fisheries, in the Department; and

xi. Placement of in-stream fish habitat enhancement devices acceptable to the Land Use Regulation Program in the Department as performed by or approved by the Division of Fish, Game and Wildlife Bureau of Freshwater Fisheries, in the Department.

3. Irrigation head gates along watercourse banks are non-regulated uses when approved in writing by a County Agriculture Agent pursuant to N.J.A.C. 7:20A-1.

(f) Non-regulated uses in the flood fringe are as follows:

1. For the purpose of this section, non-regulated uses are land uses within flood fringe areas which:

i. Do not further reduce the volume of flood storage available, unless the reduction will be insignificant and offset by the benefits to the public health, safety and welfare such as those activities listed in (f)2 below;

ii. Do not require any hydrologic or hydraulic calculations to determine the impact;

iii. Do not adversely affect those areas described in (a) above;

iv. Do not cause or contribute to a violation of any applicable State water quality standard or otherwise adversely affect water quality; and

v. Are undertaken with the land owner's express written permission.

2. Non-regulated uses which satisfy the conditions of (f)1 above may include the following and other uses similar in character and environmental impact:

i. Residential and commercial: Improvements such as lawns, play areas specifically designed for use by children, gardens or landscaping; fences; anchored dog houses; auxiliary utility buildings up to 100 square feet; pole barns which shall remain permanently open on all sides, driveways at grade, barbecue pits, open decks attached to residential structures and one or more additions to an owner occupied single-family residential structure up to a total of 300 square feet;

ii. Private and public recreation: Areas specifically marked and designated as: playing fields or courts including backstops and/or open bleachers, bicycle paths,

picnic grounds, swimming areas, parks, wildlife and nature preserves, game farms, hunting and fishing areas, boat launching ramps constructed at grade, shooting preserves, hiking and horseback riding trails, driving ranges, archery ranges, target ranges, trap and skeet ranges, fish hatcheries; anchored auxiliary utility buildings up to 100 square feet as well as fences and in-ground and above-ground pools provided that they do not displace more than 100 cubic yards of flood plain storage;

iii. Agriculture: General cultivation, pasture, grazing, fences, irrigation, outdoor plant nurseries, horticulture, viticulture, forestry, sod farming, wild crop harvesting, on-going farming operations, and registered farming operations, excluding greenhouses and all other structures related to any of the foregoing uses.

(1) Specific soil conservation practices such as terracing, construction of water diversions, subsurface drainage and the construction of grassed waterways and dug ponds will be considered non-regulated uses only when approved in writing by the appropriate County Soil Conservation District Office;

(2) Plastic covered greenhouses and other auxiliary utility buildings constructed without permanent foundations and anchored, pursuant to the Uniform Construction Code and all applicable local building codes, and fences associated with agricultural uses.

iv. Utility poles and towers; and

v. Roadway repairs and maintenance that will not raise the existing road grade.

(g) Persons may submit a request for a written jurisdictional determination pursuant to this section. A request for a jurisdictional determination shall contain a complete description of the work proposed and an engineering site plan showing the described work as well as existing and proposed topography. If the Department determines that it has jurisdiction over the proposed work, a permit pursuant to this chapter shall be obtained before any work commences.

7:13-1.4 Construction

(a) The provisions of this chapter shall be liberally construed to permit the Department to fulfill its statutory obligations.

(b) The Commissioner may amend, repeal or rescind this chapter or any part thereof in conformance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq.

7:13-1.5 Program Information

Information and forms relating to permits under this chapter may be obtained from:

Department of Environmental Protection
Land Use Regulation Program
CN 401
Trenton, New Jersey 08625
(609) 292-1235

7:13-1.6 Other State statutes, rules and regulations

The powers, duties, and functions vested in the Department under the provisions of the Acts or the provisions of this chapter, shall not be construed to limit in any manner the powers, duties, and functions vested therein under any other provision of law or regulation except as specifically set forth in this chapter.

7:13-1.7 Severability

If any section, subsection, provision, clause or portion of these rules or the application thereof to any person or circumstance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of these rules and their application to persons and circumstances other than those to which they have been held invalid shall not be affected thereby.

Subchapter 2. Project Standards
7:13-2.1 General

(a) The engineering standards of this subchapter will only apply along watercourses within the jurisdiction of this chapter that have a total contributory drainage area greater than 50 acres.

1. The engineering standards for development in the flood fringe area will not apply to tidally-influenced flood plains as described in N.J.A.C. 7:13-1.3(b).

(b) The environmental standards of this subchapter will apply along all watercourses under the jurisdiction of this chapter regardless of the drainage area except along manmade, but not manaltered, watercourses with a total contributory drainage area less than 50 acres.

7:13-2.2 Prohibited uses

(a) The following are prohibited uses in floodways:

1. The addition of any fill, new structures or fences which would raise the existing grade of the receiving area and/or create an obstruction to flow, except as provided in (b) below;

2. The addition of any solid or hazardous waste or pollutant;

3. The discharge, processing, storage or disposal of pesticides, domestic or industrial wastes, radioactive materials, petroleum products or other hazardous materials except as specifically authorized by law and pursuant to permits, licenses and grants from all authorities with jurisdiction over such activities;

4. The storage of materials or equipment;

5. The construction of individual subsurface sewage disposal systems; and

6. The construction of off-channel detention/retention basins.

(b) Exceptions to (a)1 above are as follows:

1. Land uses existing prior to March 20, 1995 which were in conformance with all relevant laws and regulations when the use commenced or which have subsequently been specifically and plainly permitted or approved since then pursuant to all applicable Federal, State or local laws may be maintained. Such uses may be expanded or enlarged only if:

i. No further obstruction to flow is created;

ii. The lowest floor elevation of any structure that is expanded is at or above the regulatory flood elevation;

iii. The structure is flood proofed or treated to minimize future flood damage;

iv. The owner submits an application for a permit under this chapter together with drawings of the proposed changes and the application is approved by the Department; and

v. Calculations are submitted to the Department which prove that new structures, alone or in combination with existing structures, are designed, connected and anchored to resist impact from debris, flotation, collapse or permanent lateral movement caused by expected structural loads and stresses (including both hydrostatic and hydrodynamic loads) from flooding to the regulatory flood elevation. Calculations shall be certified as true and accurate by a New Jersey licensed engineer or architect.

2. Structures (or portions thereof) constructed prior to March 20, 1995 which were constructed in accordance with all relevant laws and regulations in effect at the time of their construction or which have subsequently been specifically and plainly permitted or approved since then pursuant to all applicable Federal, State or local laws and which were damaged by flooding or any means other than flooding may be restored provided that:

i. The restored structure will not create a larger obstruction to flow than the original structure;

ii. The lowest finished floor elevation of the restoration is at or above the regulatory flood elevation, where feasible;

iii. The work done is flood proofed or similarly treated to minimize future flood damage;

iv. The owner submits an application for a permit under this chapter together with drawings of the proposed reconstruction and the application is approved by the Department; and

v. The structures are designed, connected and anchored to resist impacts from water and debris, flotation, collapse or permanent lateral movement due to structural loads and stresses (both hydrostatic and hydrodynamic) from flooding equal to the regulatory flood elevation, where feasible. Calculations shall be certified as true and accurate by a New Jersey licensed engineering or architect.

3. Sanitary landfills constructed prior to (the effective date of these new rules) and constructed in accordance with all relevant laws and regulations in effect at the time of construction or which have subsequently been specifically and plainly permitted or approved since then pursuant to all applicable Federal, State or local laws may be expanded vertically provided that:

i. No horizontal expansion is made;

ii. The side slopes of the landfill are not steeper than a ratio of two horizontal to one vertical;

iii. Soil erosion and sediment control measures in accordance with the requirements of this chapter are taken;

iv. The flood damage potential is not increased; and

v. The other applicable provisions of law are complied with.

(c) The following are prohibited uses in the flood fringe:

1. The disposal or storage for any period of time of pesticides, industrial, hazardous or solid wastes, radioactive materials, petroleum products or other hazardous materials, which could during the regulatory flood enter the flood waters and endanger the public health, safety and welfare. Wastewater and water treatment plants to be located in the flood fringe shall comply with the requirements of this chapter.

7:13-2.3 Regulatory flood

(a) The regulatory flood for delineated watercourses is the flood hazard area design flood. This flood represents the 100-year flood flow increased by 25 percent to allow for future development in the drainage basin. Flood profiles, mapping and the corresponding computer models for delineated watercourses may be obtained by contacting:

Department of Environmental Protection
Flood Plain Management
501 East State Street
CN-401
Trenton, New Jersey 08625
(609) 292-2296

(b) The following pertain to non-delineated watercourses:

1. The volume of flood waters and the resulting flood elevations are increased as a drainage basin is developed. The State delineations account for this increased flooding by adding an additional 25 percent to the calculated 100-year flood discharge. Therefore, in order to properly carry out the intent of the Acts and protect life and property in or near the flood plain, the regulatory flood flows along non-delineated streams shall be calculated assuming that the entire contributory drainage area is fully developed in accordance with the current zoning plan, to the maximum impervious cover allowed thereunder, and in accordance with applicable storm water management regulations.

2. The Flood Insurance Program, administered by the United States Federal Emergency Management Agency (FEMA), classifies flood plain areas in a manner similar to the State of New Jersey and publishes Flood Insurance Rate Maps as well as Floodway Maps for individual municipalities that are in the program. However, since the FEMA maps only reflect the 100-year flood plain at the time of the study and did not anticipate future development in the drainage basin, they can not be used to establish the regulatory flood elevation for the purposes of this chapter unless it can be demonstrated to the satisfaction of the Department that the FEMA study reflects full

development in the Drainage basin or that there is a viable basin-wide storm water management system in place that will not increase the peak flows developed by the FEMA study.

(c) Structures that span the flood plain and/or act as control structures for the watercourse, such as bridges, culverts or low dams, shall be designed so that any increase in flood elevations, upstream or downstream, will not subject existing residential or commercial buildings to increased flood damages during floods of lesser frequency than the regulatory flood.

1. For example, water-control structures constructed onstream to impound water for flood control or other purposes may reduce the 100-year flood elevation but can significantly increase the lesser-frequency floods such as the two or 10 year floods. Another example is an adequate culvert which is overtopped during the regulatory flood but not during lesser frequency floods. Replacing this structure with a larger structure may not affect the regulatory flood elevation but can significantly increase flood elevations downstream during lesser frequency floods. Since the lesser-frequency floods are more likely to occur, projects such as these can significantly increase the flood damage potential in a developed area.

7:13-2.4 Establishment of flood plain limits and encroachment lines on non-delineated watercourses

(a) The boundaries of the flood plain along non-delineated watercourses shall be established by a standard step backwater analysis using the flow rate developed assuming full development of the contributory drainage area.

(b) The encroachment lines shall be set anywhere outside of the floodway, which is established through equal conveyance reduction calculations, using the flood elevation determined by the standard step backwater analysis described in (a) above and the specific site cross-sections. The allowable rise in water surface shall be no more than two-tenths of a foot.

7:13-2.5 Watercourse cleaning

(a) Watercourse cleaning permits shall be issued for projects which involve the removal of accumulated material from the channel by mechanical means, only if there is a demonstrated need for the removal of the material that cannot be met, remedied or addressed by other means and the following environmental standards are met:

1. Only accumulated silt, sediment or debris found in the channel may be removed from the watercourse. Removal shall not extend beyond or below the natural

channel. Removal of material below the natural watercourse channel shall be considered a channel modification and subject to the requirements of N.J.A.C. 7:13-2.9;

2. Spoils shall be disposed of in accordance with all Federal, State and local laws;

3. The use of heavy equipment within the channel shall be avoided to the greatest extent possible;

4. Disturbance to near-stream vegetation shall be minimized to the greatest extent possible;

5. Cleaning shall not adversely affect the fisheries resources or any species of threatened or endangered species; and

6. Cleaning shall not adversely affect the habitat of any species of Threatened or Endangered animal or plant, whether currently occupied or documented, historic habitat.

(b) An applicant may apply for a cleaning and maintenance permit for portions of any watercourse under their jurisdiction. Upon application, the permit may allow for the initial cleaning and subsequent maintenance of the cleared channel for the five year life of the permit provided that the requirements of (a) above are satisfied. Additional watercourses, not included in the original permit, that are on the applicant's private property covered by the original permit or under the jurisdiction of the applicant that applied for the original permit, may be added during the life of the permit through an application to modify the permit pursuant to N.J.A.C. 7:13-4.9 provided that the reqwuirements of (a) above are satisfied.

(c) The required information for the watercourse cleaning application is the same as that outlined in N.J.A.C. 7:13-4.1. In addition, the application shall contain the following:

1. A narrative which:

i. Describes the project area including the specific points of access to the watercourse;

ii. States why the project is required and its specific objectives;

iii. Specifies the methods of excavation and types of equipment to be used on each segment of the watercourse; and

iv. Specifies the methods and locations of spoil disposal and the methods of soil erosion and sediment control to be used during the project;

2. Color photographs of the areas of the watercourse(s) to be cleaned and of the access points; and

3. Plan drawing(s) of sufficient scale, but no greater than one inch = 200 feet, showing the exact limits of work for each reach of the watercourse affected and cross-sections showing the material to be removed. All specific snags, rocks, logs, sand bars, etc., to be removed must be identified on the plan.

i. When a Mosquito Commission is the applicant, drawings may be signed by the Mosquito Commission superintendent.

(d) Spoil disposal methods and soil erosion and sediment control techniques shall comply with the provisions of this chapter.

(e) Projects intended solely for mosquito control that exceed the criteria in (a) above shall be granted by the Department if the applicant meets the following criteria:

1. The applicant has provided notice as required for a hardship exemption under N.J.A.C. 7:13-4.2;

2. In the case of projects of significant public interest, the applicant has convened a public hearing informing the public of the purpose and scope of the project and responding to public comment;

3. The applicant has demonstrated that no reasonable alternative exists whereby the objectives of the project can be satisfied;

4. The applicant has demonstrated that the adverse environmental impacts of the project will be minimized; and

5. The applicant submits individual, site-specific project proposals to the Administrator of the State Office of Mosquito Control Coordination, and the Administrator determines that the project is necessary to control a documented mosquito problem to existing residents.

7:13-2.6 Excavation

(a) Engineering and environmental standards for excavation are as follows:

1. All projects involving permanent excavation within the flood plain shall not have cut faces at slopes steeper than a ratio of two horizontal to one vertical.

2. Excavation projects shall not be so deep as to affect any wells in the surrounding areas or to cause any ground water pollution.

3. The Department may set special conditions concerning the character, excavation methods, and disposal sites of any excavated materials as required to ensure the safety of persons and property affected by the excavation.

7:13-2.7 Disposal of spoils

(a) Engineering standards for disposal of spoils are as follows:

1. Disposal of spoils is prohibited within the floodway of any flood plain under the jurisdiction of this chapter, except for watercourse cleaning projects approved by the Department.

2. Any material permitted by the Department to be disposed of in the flood fringe area shall be spread evenly to a depth specified in writing by the Department and shall not inhibit the positive drainage of the area.

3. Where watercourse cleaning spoils feasibly cannot be removed from the site, a description of the method of on-site disposal shall be indicated on the plan. The Department may set special conditions concerning excavation methods, contents and disposal sites of any excavated materials as required to ensure the safety of persons and property affected by the project.

(b) Environmental standards for disposal of spoils are as follows:

1. No spoils shall be placed within 25 feet of the top of bank or within the area described in N.J.A.C. 7:13-1.3(a)3, except for watercourse cleaning projects approved by the Department. The natural characteristics of this 25 or 50 foot area shall be preserved to the greatest extent possible, with selective tree removal permitted only when absolutely necessary. Brush and trees that when measured 4.5 feet from the ground are less than four inches in diameter may be selectively and sparingly cleared to provide access to the watercourse or site.

2. Spoil material shall be stabilized within 48 hours of its placement according to the "Standards for Soil Erosion and Sediment Control," N.J.A.C. 2:90. Details of the methods of stabilization selected by the applicant shall be included on the plans submitted to the Department.

(c) In the case of projects performed by Mosquito Commissions for the sole purpose of mosquito control, the disposal of spoils will be reviewed pursuant to the requirements of N.J.A.C. 7:13-2.5(e).

7:13-2.8 Stormwater management

(a) Engineering standards for stormwater management are as follows:

1. If a regional stormwater management plan for the watershed containing the watercourse affected by the development has been developed, the applicant shall design the project and its management of stormwater to conform to that regional plan. If no regional stormwater management plan has been developed, any stormwater discharge within the jurisdiction of this chapter shall be controlled so that either:

i. The volume of stormwater discharged from the site and the rate of runoff from the two, 10 and 100 year storm events for the post-construction site conditions does not exceed the pre-construction volume and rate of runoff; or

ii. The post-construction peak runoff rate for the two year storm event is 50 percent of the pre-construction peak runoff rate and the post-development peak runoff rate for the 10 and 100 year storm events are 75 percent of the pre-project construction peak runoff rate.

2. The design storms used to achieve the required level of site runoff control described above shall be defined as either the 24-hour storm using the rainfall distribution recommended by the U.S. Soil Conservation Service, or as the total rainfall uniformly distributed throughout the critical storm duration as determined by the Modified Rational Method. A 20 acre drainage area limit shall be used for the Modified Rational Method.

3. For the purposes of choosing runoff coefficients, all lands in the site shall be assumed, prior to development, to be "in good hydrologic condition" if the lands are pastures, lawns or parks, "with good cover" if the lands are woods, or "with conservation treatment" if the land is cultivated, regardless of conditions existing at the time of computation. For land to be considered cultivated, it shall have been used for such purposes uninterruptedly for a period of at least 10 years prior to the time of computation. If such uninterrupted use has not occurred or cannot be satisfactorily documented, woods shall be assumed to be the redeveloped land condition. In computing pre-project construction runoff, all significant land features, such as ponds, depressions or hedgerows which increase the ponding factors shall be accounted for.

4. The applicant shall provide plans and calculations to the Department which show that the discharge attributable to the proposed project will not cause erosion

along the flow path between the outfall and the receiving waterbody. All storm water discharge paths shall be stabilized in accordance with the criteria in N.J.A.C. 7:13-3.3.

5. An exemption from the discharge reduction requirements of this section will be allowed for Federal, State, county or municipal highway or road projects that cannot meet the requirement due to limited right-of-way, provided that the applicant demonstrates to the Department's satisfaction that:

i. There is a need for the project which cannot be accomplished by any other means; and

ii. The project has been designed so that stormwater runoff is minimized to the greatest extent possible.

(b) Environmental standards for stormwater management area as follows:

1. Stormwater systems whose discharges come under the jurisdiction of this chapter shall be designed to reduce, to the maximum extent possible, the total suspended solids (TSS) generated by the development for storm events up to the water quality design storm, and to retain as closely as possible the pre-project construction hydrologic conditions on the site.

2. The water quality design storm shall be defined as either 1.25 inches of rainfall falling uniformly in two hours or the one year 24 hour storm using the U.S. Soil Conservation Service type III rainfall distribution. Due to the relatively small amount of rainfall produced by the design storms, a separate and accurate determination of the runoff from the pervious and impervious areas of the site shall be provided to ensure curve numbers that produce an accurate calculation of peak rate of runoff.

3. Stormwater systems shall be designed so that there is no degredation of water quality in the receiving watercourse. The Department's Surface Water Quality Standards, N.J.A.C. *7:9B, shall be used as a guidelines for this determination.

(c) Development within the jurisdiction of this chapter shall incorporate land uses and best available technology (such as cluster land development, minimum site disturbance, open space acquisition, use of sheet flow from streets and parking areas, protection of wetlands, steep slopes and vegetation) in their design in order to minimize the volume of stormwater and TSS generated, maintain on-site infiltration, simulate natural drainage systems and minimize the discharge of pollutants to ground or surface waters.

(d) The following list of stormwater management techniques and design conditions are some of the techniques available for meeting the requirements of (b)

above. The methods are identified as either encouraged or discouraged based on their individual effectiveness. Otherwise, the order of the list does not imply that any one method is favored over another. These techniques may be used, depending on the site conditions and type of development, alone or in combination. Other stormwater management techniques may be used if it can be shown to the Department's satisfaction that they satisfy the requirements of (a) and (b) above.

1. The use of artificial wetlands is encouraged by the Department provided that:

i. Where feasible, the wetlands should be created around a standing pool of water at least 6 feet in depth;

ii. At least one-half of the perimeter of the water area is graded to form a 10 to 20 foot wide shallow bench for aquatic emergents;

iii. The surface area of the artificial wetlands is at least three percent of the total area contributing flow into the artificial wetland;

iv. Vegetation is commercial wetland plant stock, either live plants or dormant rhizomes, instead of transplants from existing wetlands areas or seeding;

v. At least two hardy and rapid colonizing indigenous primary wetlands species are planted over 30 percent of the total shallow water area. Each species shall be planted in three or four monospecific stands with individual plants spaced two to three feet apart. Up to three less aggressively colonizing secondary wetlands species shall be randomly distributed in clumps around the perimeter of the marsh; and

vi. At least 25 percent of the total surface area of a basin designed exclusively to act as a shallow marsh is open water with a depth of at least two feet in order to provide habitat for waterfowl and other marsh birds.

2. The use of wet ponds/retention basins is encouraged by the Department provided that:

i. Such basins are not located within the floodway of the water-course unless they are constructed on-channel except in trout production, trout maintenance and anadromous fish watercourses where such construction is discouraged as it would harm or block the passage of indigenous fish populations;

ii. The volume of the permanent pool is at least three times the volume of the expected runoff from the water quality design storm, or the detention times listed in (a) above are met;

iii. The pool is shallow enough to avoid thermal stratification and deep enough to minimize algal blooms and resuspension of decomposing organics and other previously deposited materials;

iv. The flow from the contributory drainage area is sufficient in dry weather to maintain the permanent pool during the summer months and prevent stagnation;

v. The configuration of the permanent pool promotes maximum sedimentation and minimizes plug flow;

vi. Where feasible, native fish stock is used to control mosquitoes; and

vii. When discharging into a trout associated watercourse, there are no adverse effects to the fish resulting from differences in temperature between the discharge and the waters in the receiving watercourse.

3. The use of detention basins is encouraged by the Department provided that:

i. The basin is not located within the floodway of the watercourse;

ii. Beginning at the time of peak storage in the basin for the water quality design storm, no more than 90 percent of the total peak storage volume is released over an 18 hour period for residential developments or over a 36 hour period for commercial developments. The rate of release shall be as uniform as possible;

iii. The minimum outlet diameter, width or height is three inches. If this minimum outlet size does not allow for the detention times required in (d)3ii above, then alternative techniques for the removal of TSS prior to discharge into the basin shall be provided; and

iv. The species of native or non-intrusive exotic vegetation used in the basin is approved by the Department and the appropriate County Soil Conservation District.

4. If the Department determines that the techniques noted in (d)1, 2 and 3 above are not feasible or justified, then the use of stabilized, vegetated or biofilter swales is permissible provided that:

i. The water velocity does not exceed two feet per second (FPS) to allow for settlement of TSS during the water quality design storm. The slope shall not be less than 0.5 percent so that positive drainage is maintained. The swale shall be of sufficient length to allow for settlement of TSS taking into consideration the velocity, depth of flow and expected loading of TSS;

ii. Where feasible, vegetation shall be used in the swale to filter out the TSS and to provide a secondary treatment by absorption of pollutants leached into the soil. Vegetation used in the swale shall be native or non-intrusive exotic species approved by the County Soil Conservation District;

iii. If the swale is designed to provide infiltration, the soil texture shall be sand, loamy sand or sandy loam as defined by the U.S. Department of Agriculture and there shall be a minimum of three feet separation between the bottom of the swale and the seasonal high water table;

iv. The swale shall be used internally within the stormwater collection system and in conjunction with other methods such as vegetated filter strips to increase their effectiveness; and

v. Vegetated swales shall not be used to provide water quality treatment below the final discharge of the stormwater collection system, unless it is shown to the Department's satisfaction that there is no other feasible method of providing for water quality within the site. If the Department allows a vegetated swale below the final discharge, then the length of the swale shall be maximized to the extent possible under the site condition.

5. The use of infiltration basins is discouraged because of their high failure rate. However, if the Department determines that the techniques in (d)1, 2, and 3 above are not feasible or justified they will be permitted provided that:

i. There is at least three feet or more vertical separation between the bottom of the basin and the seasonal high water table;

ii. The soil texture is sand, loamy sand or sandy loam as described by the U.S. Department of agriculture;

iii. No topsoil is placed in the basin;

iv. The basin bottom is scarified after the basin is formed, after which no other construction within the basin may occur;

v. The entire volume of runoff generated by the water quality design storm is contained in the basin and recharged into the ground within 72 hours; and

vi. A backup drainage system is provided to handle the excess flows from the basin in the event of a basin failure.

6. The use of sediment traps and oil/grease separators is strongly discouraged because of their limited capacity and the high degree of maintenance required to keep them operational. However, if the Department determines that there are absolutely no other feasible alternatives, the Department will allow them provided that the drainage areas served are less than one-tenth of an acre in size and the applicant's comprehensive maintenance plan is approved by the Department.

7. The use of porous asphalt pavement is discouraged due to problems with maintenance and continued functioning. However, if the Department determines that there are absolutely no other feasible alternatives, the Department will allow its use provided that:

i. The soil beneath the pavement is sand, loamy sand or sandy loam as defined by the U.S. Department of Agriculture;

ii. The porous pavement is buffered with vegetative screening to prevent the intrusion of aeolin sand and silt;

iii. The permittee undertakes a strict maintenance schedule including but not limited to vacuum sweeping on a weekly basis and high pressure water washing on a monthly basis;

iv. The porous pavement is used in light traffic areas subject to automobiles only and is marked by a sign restricting traffic to only passenger vehicles;

v. No asphalt sealer is used; and

vi. No sand is used during periods of snow and ice.

8. The use of underground basins and perforated pipes for the purpose of infiltration is strongly discouraged because of restricted access which discourages proper maintenance. However, if the Department determines that there are absolutely no other feasible alternatives, the Department will allow their use provided that:

i. The soil in the area is sand, loamy sand or sandy loam as defined by the U.S. Department of Agriculture; and

ii. Runoff is filtered to remove TSS prior to discharge into the basin or pipe.

(e) Maintenance shall be required as part of all stormwater management plans. Specific maintanence techniques and schedules shall be provided for each type of system used on the site. If maintenance of the system will be the responsibility of a person other than a State, county or municipal agency, then the maintenance plan

approved by the Department shall be recorded upon the deed of record for the property.

1. The maintenance plan shall include the name address and telephone number of the party or parties responsible for long term maintenance. Documentation of their assumption of this responsibility shall be submitted to the Department as part of the permit application. The transfer of maintenance responsibility to individual property owners in residential subdivisions is prohibited except through a homeowners association agreement.

2. Written maintenance and repair records for all stormwater management systems shall be maintained for at least five years by the person(s) identified in (e)1 above and shall be provided to the Department upon request.

3. Maintenance of artificial wetlands shall include, but not be limited to:

i. Documented visual inspection of all components of the system at least once every six months;

ii. Documented removal of silt, litter and other debris from all catch basins, inlets and drainage pipes at least once every six months or upon noticeable buildup; and

iii. Vegetation removal and replacement at least once a year.

4. Maintenance of detention basins shall include, but not be limited to:

i. Documented visual inspection of all components of the system at least once every six months;

ii. Documented removal of silt, litter and other debris from all catch basins, inlets and drainage pipes at least once every six months or upon noticeable buildup;

iii. Documented maintenance, including grass cutting, and necessary replacement of all landscape vegetation within the basin at least once a year; and

iv. Documented aeration of basin bottoms at least once a year and scrapping and replanting at least once every five years to prevent the sealing of the basin bottom.

5. Maintenance of wet ponds/retention basins, located within or discharging to the waters listed in N.J.A.C. 7:13-1.3(a)3i, ii, iii and iv, shall include, but not be limited to, annual, documented monitoring of water quality, dissolved oxygen, vegetative growth, temperature and fish population, for a period of three years to ensure that the wet pond/retention basis is working as intended*.

7:13-2.9 Channel modification

(a) Channelization of an existing watercourse or watercourse relocation is prohibited except where necessary to control existing flooding and/or erosion which threatens life or property or in cases in which the Department determines that the effects of channelization are offset by the resulting restoration or improvement of the natural characteristics of the nearby environment.

(b) Engineering standards for channel modifications are as follows:

1. When change in the watercourse channel is proposed, the applicant shall submit plans reflecting the manner in which the channel shall be stabilized at the point of each change to ensure that no erosion occurs at either high or low flows. If a change in slope causes a hydraulic jump to occur just downstream of the constructed area, the applicant shall submit plans describing methods to protect the integrity of the downstream channel. The methods for stabilization shall be in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" or the latest amendment thereto, N.J.A.C. 2:90.

2. If the channel modification results in a reduction of the water surface, the change in the volume of flood storage in the flood fringe shall be considered as fill for the purposes of this chapter.

(c) Environmental standards for channel modification are as follows:

1. Reconstruction of aquatic habitat damaged or destroyed during channelization is required (N.J.A.C. 7:13-3.4) whether or not the watercourse is trout-associated. This includes, but is not limited to, replication of aquatic characteristics such as percent meandering, bottom substrate type, pool/riffle ratio, stream width, depth and gradient, and the placement of habitat enhancement devices within the watercourse. Provision for Fish Passage (N.J.A.C. 7:13-3.6(c)) is required, as is vegetative bank stabilization to reestablish any near-watercourse habitats damaged or destroyed as a result of the construction of the project.

7:13-2.10 Underground utilities in the flood plain

(a) Underground utilities include, but are not limited to, electric cables, telephone cables, sanitary sewer lines, water lines, gas mains, petroleum pipelines, and other pipes carrying various types of materials.

(b) Engineering standards for underground utilities in the flood plain are as follows:

1. The top of pipe or encasement shall be at least three feet below the invert of the watercourse. In special circumstances, such as hard rock bottoms, this may be reduced with the approval of the Department.

2. Sanitary sewer, petroleum product and gas lines shall be encased in six inches of concrete or a larger steel pipe for protection. A stainless steel plate, at least one-quarter inch thick, may be substituted for the top six inches of encasement if three feet of vertical clearance cannot be achieved. The encasement requirement may be waived by the Department if a minimum of four feet of cover is maintained for as long as the crossings are in use.

3. The crossing shall be horizontal under the watercourse, and the pipe or encasement shall extend a minimum of 10 feet beyond the top of banks. This requirement may be modified by the Department for good cause shown by the applicant in cases in which the modification shall pose no additional risk to life or property either alone or taken in conjunction with the rest of the project.

4. The inclined leg of the crossing shall not be steeper than a ratio of one vertical to two horizontal, except as modified in writing by the Department for good cause shown by the applicant and in cases in which the modification shall pose no additional risk to life or property either taken alone or in conjunction with the rest of the project.

5. If manholes are to be located in the flood plain, the top of the manhole shall be flush with the ground. Sanitary sewer lines shall have a watertight cover.

6. For large or tidal watercourses, a cable may be laid directly on the watercourse bed. The cable shall be laid with slack so as to be readily moveable.

7. Utilities crossing over or under a piped reach of stream or culvert do not need to be encased but shall maintain a minimum one foot vertical distance above or below the pipe or culvert.

(c) Environmental standards for underground utilities in the flood plain are as follows:

1. The width of trenches for installation of underground utilities shall be limited to the minimum necessary to permit installation. Upon installation of the utility, trenches outside the channel shall be backfilled to the pre-excavation ground elevation and planted with native species of vegetation. Trenches within the channel shall be backfilled to the pre-excavation ground elevation and stabilized in a manner that will mimic the characteristics and nature of the natural channel as closely as possible.

7:13-2.11 Aboveground utilities in the flood plain

(a) Engineering standards for aboveground utilities in the flood plain are as follows:

1. Cables or pipes may be attached to a bridge at a point above the lowest member crossing the watercourse. However, if cables or pipes are located on the outside of a structure, the crossing shall be located on the downstream face of the structure, when at all possible. If the crossing must be located on the upstream face of the structure, the crossing shall be protected from damage due to impact with debris in the event of a flood.

2. Cables or pipes shall not be installed within a culvert or bridge opening except upon a determination by the Department that no other feasible location exists.

3. Crossings of cables or pipes over areas within the jurisdiction of this chapter shall be at least one foot above the regulatory flood elevation and shall be protected to prevent damage from impact with floating debris.

7:13-2.12 Dams

(a) All dams and structures related thereto proposed to be located in areas under the jurisdiction of this chapter shall meet the standards in this section.

(b) Engineering standards are as follows:

1. Dams classified as Class I, II or III under the Dam Safety Standards, N.J.A.C. 7:20, which have received a Dam Safety Permit shall not be subject to any engineering review under this chapter.

2. The structural stability of dams is regulated pursuant to the Safe Dam Act, N.J.S.A. 58:4-1 et seq., and will not be reviewed under this chapter. All other applicable engineering standards of this chapter shall apply.

3. For the purpose of this chapter, off-channel dams and the resulting impoundments shall be considered as fill if constructed in the flood plain.

4. Any backwater created by an off-channel dam shall be contained within the applicant's property unless written consent is obtained from all affected property owners. The applicant shall advise the Department and all affected property owners of the anticipated effects of such backwater on both surface water and ground water.

(c) Environmental standards are as follows:

1. The environmental standards of this chapter shall apply to all dams proposed for construction in areas within the jurisdiction of this chapter.

2. It is unlawful to construct a dam in any water of this State which is a runway for migratory fish without installing a fish ladder or other contrivance to permit a fish to pass the dam in either direction (see N.J.S.A. 23:5-29-1).

i. The determination of whether a watercourse is currently a runway for migratory fish is made by the Division of Fish, Game and Wildlife during the Department's review of an application for a permit under this chapter. Applicants are encouraged to discuss the matter with this program and the Division of Fish, Game and Wildlife prior to filing any application.

3. Low dams across trout-associated watercourses shall not be allowed unless the applicant demonstrates and the Department determines that there is a legitimate need for the dam that cannot be accomplished in another fashion with less impact upon the environment.

7:13-2.13 Requirements for structures

(a) Engineering standards for structures proposed to be located in areas within the jurisdiction of this subchapter are as follows:

1. All structures proposed to be located in areas within the jurisdiction of this chapter shall be designed, connected and anchored to resist flotation, collapse or permanent lateral movement due to structural loads and stresses (including hydrostatic and hydrodynamic) produced by flooding equal to the regulatory flood elevation, and the freeze/thaw cycle of the soil.

2. All structures within the channel shall be designed, connected and anchored to resist undermining caused by stream bed erosion and shall be designed in accordance with the "Standards for Soil Erosion and Sedimentation Control in New Jersey" or the latest amendment thereto, N.J.A.C. 2:90.

3. All hospitals, clinics, nursing homes, schools of any sort, day care centers, hotels, private residences and similar buildings which are proposed in areas under the jurisdiction of this chapter shall be elevated so that the lowest floor, including any basement, is at or above the regulatory flood elevation. This requirement applies to buildings proposed to be located on lands previously in the flood plain but legally filled after January 31, 1980, and raised above the regulatory flood elevation.

4. Any hospital, clinic, school of any sort, nursing home, day care center, hotel or other similar facility proposed to be built in, or which will require access through, areas under the jurisdiction of this chapter shall have at least one driveway or access route elevated to or above the regulatory flood elevation.

5. All proposed residential developments or subdivisions proposed to be built in, or which will require access through, areas under the jurisdiction of this chapter and which create more than one new residence shall, where feasible, have at least one driveway or access route at or above the regulatory flood elevation. If such a route is not feasible, then all on-site roads, parking areas and driveways shall be constructed at or above the regulatory flood elevation to the extent possible.

6. Driveways within the jurisdiction of this chapter which serve only one single-family residence shall be elevated at or above the regulatory flood elevation except as provided below. In the event the applicant homeowner or builder, as the case may be, refuses to comply with this requirement, the applicant shall acknowledge, in writing, the fact that the driveway may be inundated by floodwaters and damaged or destroyed, and said applicant shall cause the Deed of Record for that residence to state that the driveway is subject to flooding and at what frequency storm the driveway will be inundated.

7. Except as stated below, all commercial and industrial structures, including water supply and wastewater treatment facilities proposed to be located in areas under the jurisdiction of this chapter, shall be elevated so that the lowest floor, including any basement, is at or above the regulatory flood elevation.

i. The Department may exempt structures from this requirement upon written application by the owner or builder providing all evidence needed for the Department to reasonably conclude that raising the structure is economically or physically impracticable and that said structures is flood proofed up to the regulatory flood elevation.

ii. The applicant shall submit a plan or document from a licensed professional engineer or architect certifying that the design described on the plans submitted to the Department conforms with the requirements of (a)7i above.

8. Recreation areas and non-residential parking lots proposed to be located within the jurisdiction of this chapter may be inundated by floods if the applicant demonstrates that no undue risk is posed to persons or property thereby and the applicant and/or owner posts a sign in a prominent location that the area is subject to flooding.

9. Applications for projects containing vertical retaining walls extending four feet or more above the watercourse bed or ground elevation at the base of the wall shall include a stability analysis of the wall calculated by a New Jersey licensed professional engineer.

7:13-2.14 Standards for fill within the flood plain

(a) Engineering standards for fill within the flood plain are as follows:

1. There shall be no fill in the floodway except as provided in N.J.A.C. 7:13-1.3(e). For regulated activities proposed in the flood fringe area, the volume of net fill to be placed on an applicant's property located in the flood fringe between the existing ground surface as of January 31, 1980, and the elevation of the regulatory flood is limited to 20 percent of the total volume of flood storage on that portion of the property.

2. The applicant shall submit engineering plans and calculations which demonstrate that the 20 percent net fill limit in (a)1 above shall not be exceeded as a result of any activity undertaken in connection with the proposed project.

3. All fill shall be graded in a manner so as not to adversely affect overland drainage flows.

4. Fill shall be placed so that slopes are not steeper than a ratio of two horizontal to one vertical.

5. Fill shall be compacted and stabilized in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" or the latest amendment thereto, N.J.A.C. 2:90.

6. When a permit allows the placement of fill, any subsequent subdivision of that property shall not increase the total amount of fill allowable under the previous permit. Additional fill may be placed on the newly-divided property only to the extent that the total amount of fill under the previous permit has not been exceeded.

7. An exemption from the 20 percent net fill requirements of this section will be allowed for Federal, State, county or municipal highway or road projects that cannot meet the requirement due to limited right-of-way, provided that the applicant demonstrates to the Department's satisfaction that:

i. There is a need for the project which can not be accomplished by any other means; and

ii. The project has been designed so that the total volume of fill is minimized to the greatest extent possible.

8. The 20 percent net fill requirement is not applicable to projects whose primary purpose, according to the Department, is for flood control and have been so approved by the Department.

9. In cases where dikes, levees, floodwalls or other structures not approved as flood control projects by the Department impede the entry of flood waters into an area that previously acted as a flood storage area, the volume of the flood waters displaced shall be considered as solid fill for purposes of calculating compliance with the 20 percent net fill requirement.

10. When proposed channel modifications will lower the pre-project construction water surface, the Department shall consider the volume of flood storage lost as solid fill for the purpose of calculating compliance with the 20 percent net fill requirement.

7:13-2.15 Additional requirements for fill in the Central Passaic Basin

(a) Engineering standards for fill in the Central Passaic Basin are as follows:

1. In addition to the requirements of N.J.A.C. 7:13-2.14, any application proposing to place fill within the Central Passaic Basin shall create a volume of flood storage within the Central Passaic Basin equal in volume to the amount of fill proposed.

2. Flood storage can be created by:

i. Excavating an area in the Central Passaic Basin between the ground surface as of March 25, 1977, and the higher of the mean low water level of the adjacent watercourse or the seasonally-adjusted high groundwater level. The excavation area shall be graded so that flood waters will freely enter and exit; or

ii. Completely removing fill and/or structures legally placed or constructed in the flood plain after March 25, 1977 so that flood waters may freely enter and exit.

3. An exemption from the zero net fill requirements of this section will be allowed for Federal, State, county or municipal highway or road projects that cannot meet the zero net fill requirement due to limited right-of-way, provided that the applicant demonstrates to the Department's satisfaction that:

i. There is a need for the project which can not be accomplished by any other means; and

ii. The project has been designed so that the total volume of fill proposed is minimized to the greatest extent possible.

4. The requirements of this section are not applicable to projects whose primary purpose, according to the Department, is for flood control and have been so approved by the Department.

5. In cases where dikes, levees, floodwalls or other structures not approved as flood control projects by the Department impede the entry of flood waters into an enclosed space, the volume of the enclosed space shall be considered as solid fill for the purposes of calculating compliance with the zero net fill requirement.

6. In order for the Department to approve any application proposing a net increase of fill in the Central Passaic Basin, a Stream Encroachment Permit for the corresponding excavation of material must have already been issued or, applied for and approved concurrently with the application made under this chapter.

7. No fill shall be placed within the Central Passaic Basin pursuant to any permit issued by the Department until the applicant has commenced creation of the flood storage mandated under the permit.

7:13-2.16 Bridges and culverts

(a) Applications to construct bridges and culverts across water-courses will be reviewed in accordance with the criteria set forth in this section.

(b) Engineering standards are as follows:

1. New bridges and culverts that are not replacements or repairs shall be designed so that they will not increase the upstream water surface elevation off of the applicant's property by more than two-tenths of a foot during the regulatory flood. The applicant shall submit a standard step backwater analysis for existing and post-construction conditions in the affected water-course to determine upstream flood impact of any new bridge or culvert.

i. The standard step analysis for existing conditions shall be calculated starting from the next control point downstream or if no control point is available, several hundred feet downstream with at least five cross-sections included before reaching the structure in question and continue upstream to at least the next upstream property or right-of-way limit.

ii. The post-construction standard step backwater analysis shall begin at the upstream face of the new structure using a starting water surface elevation calculated by a separate analysis of the bridge or culvert.

iii. If flood elevations are being calculated by a computer model based on the standard step backwater analysis, such as a HEC-2 model, then the bridge or culvert should be coded into the model as "recommended" in the model's documentation. If a computer model other than HEC-2 is used, complete documentation for the assumptions made by the model shall be submitted with the application, unless the Department advises the applicant that it is familiar with the model.

2. Replacements or repairs of bridges and culverts shall be designed so that:

i. If the size of the area open to the passage of floodwaters is decreased as a result of the construction of the structure, there shall be no increase to the upstream water surface outside the applicant's property during the regulatory flood. A standard step backwater analysis shall be performed for existing and post-construction conditions in the affected watercourse to determine the change in upstream water surfaces as a result of the construction of the proposed project. The analysis shall begin at the upstream face of the structure using a starting water surface elevation obtained through a separate analysis of existing and post-construction conditions of the affected watercourse.

ii. If the size of the area open to the passage of floodwaters is increased as a result of the construction of the proposed structure, the structure shall be designed so that the flow rate through the structure will not increase so as to cause increased flooding downstream off of the applicant's property during the regulatory flood. Documentation, which may include a detailed routing of the affected watercourse, shall be submitted to the Department to show that there is no downstream increase in flooding due to the increased area open to floodwaters. The routing shall continue to the next downstream control point.

iii. If flood elevations are being calculated by a computer model such as HEC-1 (routing) or HEC-2 (standard step), then the bridge or culvert should be coded into the model as "recommended" in the model's documentation or the model may be stopped at the downstream face of the structure and resumed upstream of the structure with a water surface elevation calculated by a separate analysis of the structure. If a computer model other than HEC-1 or HEC-2 is used, the applicant shall submit to the Department complete documentation for all the assumptions made by the model unless the Department advises the applicant that it is familiar with the model.

3. Bridges and culverts, whether new or replacement, may be designed to be overtopped during the regulatory flood provided that:

i. The applicant and landowner, as the case may be, submits to the Department a written acknowledgement of responsibility for damage to the structure by flood waters;

ii. The structure is designed to remain stable and resistant to erosion during the regulatory flood; and

iii. The structure meets the criteria above in (b)1 and 2 as well as the access requirements set forth in N.J.A.C. 7:13-2.13.

4. Channel transitions in excess of 100 feet in length upstream or downstream of the proposed bridge or culvert shall be considered channel modifications and shall meet the requirements of N.J.A.C. 7:13-2.9.

(c) Environmental standards are as follows:

1. New crossings over a watercourse shall span the flood plain unless the applicant demonstrates to the Department's satisfaction that such a design would be prohibitively expensive to construct and that no additional significant risk is created to persons or property downstream as a result of construction of the proposed design, considering the ability of the structure to withstand the regulatory flood.

2. Channel transitions shall be minimized to the greatest extent possible.

3. Applicants seeking to construct any bridge or culvert, whether new or replacement, shall provide fish passage as described in N.J.A.C. 7:13-3.6(c) through the culvert itself and within the upstream and downstream channel transition areas for those watercourses that are currently populated by fish on a seasonal or permanent basis or which are likely to be so inhabited in the future.

i. Any channel created or modified as a result of construction of any bridge or culvert shall be designed and constructed so that during low flow conditions the water depth therein is at least as deep as in the existing channel except as provided in (c)3ii below;

ii. Exceptions to the requirement in (c)3i above shall not be granted by any agency designated by the Department to supervise any aspect of the permiting or construction of any structure pursuant to this chapter. Requests for exemption from the requirements of section (c)3i above shall be submitted to and granted by the Department if:

(1) The existing channel does not allow for the upstream passage of fish during low-flow conditions; or

(2) Fish passage in the particular channel segment is irrelevant because of upstream or downstream conditions unfavorable to fish passage; or

(3) Other conditions such as public need or extreme hardship make this requirement impracticable.

4. Maintenance of the existing watercourse bed shall be a priority in project design.

5. The use of standard box culverts in trout associated waters, in waters used by Anadromous fish, and in warm-water game fish waters shall be avoided and alternative methods shall be utilized where at all practicable. Alternative methods can include spanning the watercourse bed and watercourse banks, construction of an arched culvert where the existing watercourse bed remains undisturbed, and the use of an oversize culvert installed one foot below design grade with the natural substrate replaced over the concrete flooring and flush with the upstream and downstream watercourse inverts. Where the applicant proposes to place a natural substrate over the concrete floor of an oversize culvert, the applicant shall provide calculations to show that the substrate will remain stable.

7:13-2.17 Sewage disposal requirements in the flood fringe

Individual or community subsurface sewage disposal systems within the flood fringe area shall be constructed in accordance with Department's Standards for Individual Subsurface Sewage Disposal Systems, N.J.A.C. 7:9A.

7:13-2.18 Impacts to other properties

(a) Unless the owners of property located either upstream and/ or downstream of the project site accept liability for any damages or inconveniences that may occur as a result of the proposed project and written proof of such an agreement is presented to the Department, the applicant shall design and construct the project so that the following conditions are satisfied:

1. The project shall not increase the flood elevation upstream or downstream of the property on which the project is located by more than two-tenths of a foot if the applicant's property includes the flood plain on both sides of the water body, or by more than one-tenth of a foot if the applicant's property is only on one side of the waterbody.

i. This limitation shall not apply to replacement bridges or culverts, which must be designed so that there is no increase to the flood elevation upstream from the project;

2. No portion of the proposed project shall be located on property other than that owned by the applicant unless specific written consent from the property owner to perform the work and accepting liability for any damages or inconveniences that may occur as a result of the work is presented to the Department; and

3. The project is designed so that a concentrated flow of storm water is not discharged across properties adjacent to those owned by the applicant.

(b) The applicant shall provide the Department with calculations describing both existing and post-construction flood elevations on the subject property and adjacent properties upstream and downstream of the proposed project.

1. The applicant shall submit a standard step backwater analysis to the Department to show the impacts to upstream flood elevations from the regulated activities. The analysis shall extend at least 100 feet beyond the applicant's upstream property limit.

2. The applicant shall submit a detailed stream routing analysis to the Department to show impacts to downstream flood elevations from the regulated activities. The analysis shall extend at least 100 feet beyond the applicant's downstream property limit.

3. If the applicant chooses to rely upon a computer model other than HEC-1, TR-20, WSP2 or HEC-2 for any portion of the application to the Department, the applicant shall include all supporting documentation describing the assumptions underlying each model or computer program used, unless the Department advises the applicant that it is familiar with each computer model the applicant has submitted.

Subchapter 3. General Environmental Standards

7:13-3.1 General

(a) The standards of this subchapter apply along all watercourses under the jurisdiction of this chapter regardless of the drainage area, except along man-made, but not man-altered, watercourses with a total contributory drainage area less than 50 acres or as otherwise indicated in this subchapter or expressly waived by the Department pursuant to the provisions of this chapter.

(b) Minimization of environmental damage shall be as follows:

1. The applicant shall describe to the Department all steps taken by the applicant to minimize pollution, impairment or destruction of the environment within the areas under the jurisdiction of this chapter, during both construction and operation of the project, describing short and long-term environmental impacts and describing the cumulative impacts of each upon the environment.

2. All projects regulated under this chapter shall be designed in accordance with Federal, State and local statutes, regulations, and ordinances.

3. The Department will not approve any regulated activity which it determines is likely to significantly and adversely affect the biota of the watercourse or its water quality including, but not limited to, adverse effects on potable water supplies, flooding, drainage, channel stability, threatened and endangered species of plants and animals or upon their current or documented historic habitats, navigation, energy production, municipal, industrial or agricultural water supplies and fisheries.

7:13-3.2 Protection of near watercourse vegetation

(a) Trees, shrubs, grasses, and other existing vegetation located within 25 feet of the top of the channel bank, or within 50 feet of the top of the channel bank in the areas listed in N.J.A.C. 7:13-1.3(a)3, shall not be disturbed unless an applicant has demonstrated to the satisfaction of the Department that there is no alternative to the proposed project design which will eliminate or further minimize the disturbance and the applicant has submitted a plan to compensate or cure the effects of the disturbance which is acceptable to the Department. Among other environmental factors, the applicant shall address the effects of the removal of vegetation on water quality and the effect of sedimentation or erosion on the biota of the watercourse. Trees shall be left standing, and bushes and stumps shall not be removed, except as expressly allowed by the Department. Access roads to work sites shall not be constructed within the areas specified above unless no feasible alternative to such an access road exists.

(b) Vegetative debris from construction shall not be disposed of in the floodway. This prohibition shall not apply to vegetative mulches applied for soil erosion and sediment control or for agricultural purposes. However, waste mulch not serving to control erosion or sediment shall not be disposed of in channels.

7:13-3.3 Soil erosion and sediment control

(a) All applications for permits pursuant to this chapter shall describe soil erosion and sediment control measures to control and minimize disturbance of any surface area under the jurisdiction of this chapter during construction and use of the proposed structure.

(b) In planning soil erosion and sediment control measures, applicants for permits under this chapter shall be guided by the latest revised version of the "Standards for Soil Erosion and Sediment Control in New Jersey" promulgated by the New Jersey State Soil Conservation Committee pursuant to the Soil Erosion and Sediment Control Act of 1975 as amended, N.J.S.A. 4:24-42 et seq. and N.J.A.C. 2:90. The Department recommends the use of Geotechnical materials to stabilize disturbed areas, whenever possible.

(c) The applicant shall meet the following additional soil erosion and sediment control requirements:

1. The area of soil disturbance shall be no larger than that which is absolutely necessary for the construction of the project;

2. Applicants shall provide the Department with soil disturbance plans which minimize the exposure of soils to erosion to the greatest extent possible;

3. If erosion and sediment control measures such as diversions, sediment basins, or sediment barriers (the purpose of which is to divert surface runoff before it reaches exposed soil or to intercept sediment eroded from exposed soil) are part of the erosion and sediment control plan for the project, such measures shall be implemented prior to any major soil disturbance or in their Department approved sequence with respect to other phases of the project in order to minimize sediment delivery to waterways. All soil erosion and sediment control practices shall be left in place and maintained until the soil is stabilized by vegetation or engineering measures;

4. Disturbed soil on the banks of waterways shall be protected within 48 hours of disturbance by rip-rap, sandbags, sod, or Department-approved mulch netting, as conditions warrant, in accordance with the "Standards for Soil Erosion and Sediment Control."

i. Asphalt or other liquid binders shall not be applied for the purpose of anchoring mulch along the banks of a watercourse.

ii. Neither calcium chloride nor any spray-on adhesive shall be applied for dust control along the banks of a watercourse;

5. In areas where vegetative methods (including "mulch only") are relied upon for erosion and sediment control without down-slope controls to intercept sediment (such as sediment basins or sediment barriers), the applicant shall seed, mulch, or place sod within 48 hours of soil exposure in accordance with the "Standards for Soil Erosion and Sediment Control." Seeding shall always be accompanied by mulching and adequate watering.

i. If weather conditions are unfavorable for successful seeding, sod placement or the establishment of vegetation, the area shall be mulched within 48 hours of soil exposure in accordance with the "Standards for Stabilization with Mulch Only" in the "Standards for Soil Erosion and Sediment Control."

ii. In areas without downslope sediment controls, slopes exceeding 15 percent gradient shall be protected within 48 hours of soil exposure by special treatment, such as water diversion berms, sodding or Department-approved mulch netting, in accordance with the "Standards for Soil Erosion and Sediment Control"; and

6. Sediment-laden water ("pumpage") from the dewatering of trenches or other excavations shall not be pumped directly into waterways or wetlands without treatment except as expressly approved by the Department.

i. Pumpage shall be piped to sediment basins or sediment barriers that meet the "Standards for Soil Erosion and Sediment Control." Mechanical filtration or sedimentation devices shall be used to minimize the discharge of sediment into waterways.

ii. Pump intakes shall be placed near the water surface to minimize the sediment content of pumpage.

iii. Upon good cause shown by the applicant why the foregoing requirements cannot feasibly be met, the Department may permit pumpage to be spread onto land located as far from the watercourse bank as possible, provided that the applicant avoids damage to trees not approved for removal by the Department.

(d) When a Soil Conservation District or exempt public entity certifies that a sediment and soil erosion plan meets both the "Standards for Soil Erosion and Sediment Control in New Jersey" and the additional requirements contained in this section, the Department or designated agent shall accept this certification as proof that the plan satisfies the requirements of this section.

7:13-3.4 Mitigation

(a) As a condition to the issuance of all permits under this chapter, permittees are required to take all measures necessary to minimize adverse environmental impacts to the receiving watercourse and areas under the jurisdiction of this chapter arising from the construction and use of the proposed project, and to restore temporarily disturbed vegetation, habitats, and land and water features to their pre-construction condition, and to prevent sedimentation and erosion to the greatest extent possible. The applicant shall submit a plan for the review and approval of the

Department by which the applicant shall restore any area temporarily disturbed by the construction of the proposed project with vegetation of equal or higher quality than that which existed on the site before construction, whether said disturbance was approved by the Department pursuant to a permit under this chapter, or not.

(b) Mitigation described in (a) above shall be performed immediately after activities that will temporarily disturb the environment.

(c) The Department shall not consider a mitigation proposal in determining whether an applicant should be awarded a permit, but it shall require mitigation as a condition of any permit it awards under this chapter.

7:13-3.5 Projects along trout associated watercourses

(a) The removal of trees and shrubs within 50 feet of the top of bank of a trout-associated watercourses is prohibited unless the applicant demonstrates that there is absolutely no other alternative to the removal of the vegetation in order to accomplish an essential part of the project. If the Department allows the removal of trees and shrubs, the applicant shall remove such vegetation from the most northerly or easterly bank of the watercourse affected by the project, rather than the southerly or westerly bank, unless expressly approved by the Department in writing.

(b) Construction equipment shall not be placed or operated in a trout-associated watercourse unless the Department issues a written determination that certain specific uses are absolutely necessary to accomplish an essential aspect of the project. Fording watercourses with construction equipment is permitted only where the watercourse bottom is firm, the approaches are stable, and such activity does not create bank erosion not already described by the applicant and incorporated into the applicant's erosion and sediment control plan already approved by the Department.

1. The Department may require the applicant to construct temporary bridges or culverts if equipment crossings of watercourses are necessary in areas which fail to meet the requirements of the preceding section.

2. All crossings of watercourses shall be made at right angles to the watercourse and the applicant shall take all measures necessary to ensure that no petroleum products or sediment is washed into the watercourse as a result of the crossing.

3. Any watercourse bank that is disturbed shall be stabilized within 48 hours in accordance with the requirements of this chapter in order to minimize the potential for erosion.

(c) Construction equipment shall not be washed in trout-associated watercourses or where wash water would drain as surface runoff into such watercourses.

(d) Unless modified with the express written approval of the Department, any development proposed in areas under the jurisdiction of this chapter which, in the opinion of the Department, could introduce sediment into the watercourse or which could cause an increase in the natural level of turbidity in the watercourse shall comply with the following requirements:

1. All regulated activities located within 50 feet of the top of bank along trout associated watercourses which would introduce sediment into the watercourse or otherwise increase the turbidity in the watercourse are prohibited during the following periods critical to spawning along such waters as identified in the Department report, "Classification of New Jersey Waters as Related to Their Suitability for Trout":

i. Brook Trout/Brown Trout Production Watercourses: September 15 through March 15 inclusive;

ii. Rainbow Trout Production Watercourses: February 1 through April 30, inclusive;

iii. Projects authorized pursuant to this chapter which are located along trout production watercourses shall suspend all construction activity during the period of September 15 through March 15, inclusive;

iv. Projects authorized pursuant to this chapter which are located along trout-stocked watercourses, or one mile or less upstream from trout-stocked and trout maintenance watercourses shall suspend all construction activity during the period of March 15 through June 15, inclusive.

2. Upon application by the permittee, the Department may specifically modify the requirements above for the following reasons:

i. Cases in which the Department determines that the likelihood of particular types of damage to trout-associated watercourses from the particular activity proposed by the permittee during the period of low flow in the June 1 through June 15 period would be less than the likelihood of particular types of damage arising from such activities in these watercourses at higher flows during other periods of the year;

ii. In cases where the combined effect of compliance with this subsection, N.J.A.C. 7:13-3.6(a) and 3.6(b) would restrict construction to less than 183 days of a calendar year, the applicant shall describe for review and approval by the Department

those specific steps to be implemented to minimize the impact of construction activity upon the affected watercourse and upon approval of such a plan the Department shall allow construction activity to continue for no more than 183 days of each year on the days specified in the applicant's plan; and

iii. In cases which the Department determines that construction must be undertaken during non-school periods in order to avoid unacceptable risk or excessive delay to school buses or vans.

(e) The mining of bottom material from a trout-associated watercourse is prohibited. This does not prohibit the incidental use or sale of watercourse bottom material removed during the course of Department-approved channelization, watercourse cleaning or other regulated activities authorized by the Department and performed for purposes other than mining.

(f) Where logs or boulders create pools or riffles that provide fish habitat, removal of such logs or boulders is prohibited unless the Department determines that their removal is necessary to accomplish an essential aspect of the project.

(g) Channelization of trout-associated watercourses is prohibited unless the Department determines that:

1. There is a compelling public need for the proposed project greater than the need to preserve the natural condition of the channels of such watercourses and that need cannot be met by essentially similar projects in the region which are under construction or expansion or which have already received the necessary governmental permits and approvals and the project cannot be accomplished in a less-destructive manner; and

2. The project meets the requirements of (h) and (i) below.

(h) Any application for channelization of a trout-associated watercourse shall include a map of the existing watercourse channel that identifies the location, dimensions and area of cascades, riffles, flats and pools, except as follows:

1. Channel modification directly and inextricably linked to the construction or maintenance of bridges or culverts, including transition zones up to 100 feet upstream or downstream from such bridges or culverts;

2. Minor bank re-establishment or bank protection projects limited to 100 feet of channel length; or

3. Other projects which require 100 feet or less of channel modification including, but not limited to sewer headwalls, sewer outlet works, sewer outlet diffusers, minor water intake facilities and channel crossings of utilities.

(i) A new or modified channel of a watercourse shall be designed and constructed in such a manner as to duplicate or preserve the pre-construction character of the channel including proportion of shading, pools, flats, riffles and cascades and, particularly in the case of trout associated watercourses, areas for fish cover and shelter.

(j) Channel modifications at bridges and culverts (including the upstream and downstream transition zones), channelization projects, watercourse cleaning projects, and other channel modifications (excluding dams) shall comply with the following fish passage requirements;

1. Any new or modified channel of a watercourse shall be designed and constructed so that, during low-flow conditions, the water depth is at least as deep as in the pre-construction channel unless the Department allows an exception to this requirement pursuant to (j)2 below.

2. No exception to (j)1 above shall be allowed by any delegated agency. The Department will allow an exception to (j)1 above if:

i. The pre-construction channel does not allow for the upstream passage of fish during low-flow conditions;

ii. Conditions upstream or downstream of the channel modification are unfavorable to fish passage; or

iii. The Department determines that other circumstances, such as public need for the project or exceptional and undue hardship for the applicant, warrant such an exception.

7:13-3.6 Projects affecting other fish resources

(a) Construction activities that would introduce sediment into the watercourse or otherwise increase the turbidity in the watercourse within 50 feet of the banks of watercourses which support anadromous fish are prohibited during the following periods:

1. For projects on waters identified as anadromous migratory pathways (watercourses): April 1 to June 30, inclusive; and

2. For projects on waters used by American Shad for migrations on the Delaware River System:

i. Mouth of bay to Delaware Memorial Bridge and tidal Maurice River: March 1 through June 30 and October 1 through November 30;

ii. Delaware Memorial Bridge to New York State line and the tidal portions of Rancocas and Raccoon Creeks: April 1 through June 30 and September 1 through November 30;

iii. Timing restrictions for formerly-native or introduced fish species, such as, but not limited to, the Atlantic Salmon, Chinoock Salmon, or Coho Salmon which may or will in the future be reintroduced to State waters, will be developed as those species become established.

(b) Construction activities which would introduce sediment into the watercourse or otherwise increase the turbidity in the watercourse, within 25 feet of the banks of waterbodies identified as supporting warm-water fish including but not limited to smallmouth bass, largemouth bass, pickerel, walleye and yellow perch shall be prohibited during the following periods:

1. Waterbodies supporting general game fish: May 1 to June 30 inclusive;

2. Waterbodies supporting pickerel: Ice Out to April 30 inclusive; and

3. Waterbodies supporting walleye: March 1 to May 30 inclusive.

(c) Channel modifications at bridges and culverts (including their upstream and downstream transition zones), channelization projects, watercourse cleaning projects, and other channel modifications (excluding dams) shall comply with the following fish passage requirements:

1. Any new or modified channel of a watercourse shall be designed and constructed so that, during low-flow conditions, the water depth is at least as deep as in the pre-construction channel unless the Department allows an exception to this requirement pursuant to (c)2 below.

2. No exception to (c)1 above shall be allowed by any delegated agency. The Department will allow an exception to (c)1 above if:

i. The pre-construction channel does not allow for the upstream passage of fish during low-flow conditions;

ii. Conditions upstream or downstream of the channel modification are unfavorable to fish passage; or

iii. The Department determines that other circumstances such as public need for the project or exceptional and undue hardship for the applicant warrant such an exception.

(d) Channelization of watercourses supporting the fisheries resources described in this section is prohibited unless the Department determines that:

1. There is a compelling public need for the proposed project greater than the need to preserve the natural condition of the channels of such watercourses and that need cannot be met by essentially similar projects in the region which are under construction or expansion or which have already received the necessary governmental permits and approvals and the project cannot be accomplished in a less-destructive manner; and

2. The requirements of (e) and (f) below are met.

(e) Any application for channelization of a watercourse which supports the fisheries resources described in this section shall include a map of the existing watercourse channel that identifies the location, dimensions and area of cascades, riffles, flats and pools, except as follows:

1. Channel modification directly and inextricably linked to the construction or maintenance of bridges or culverts, including transition zones up to 100 feet upstream or downstream from such bridges or culverts;

2. Minor bank re-establishment or bank protection projects limited to 100 feet of channel length; or

3. Other projects which require 100 feet or less of channel modification including, but not limited to sewer headwalls, sewer outlet works, sewer outlet diffusers, minor water intake facilities and channel crossings of utilities.

(f) The new or modified channel of a watercourse shall be designed and constructed in such a manner as to duplicate or preserve the pre-construction character of the channel including proportion of shading, pools, flats, riffles and cascades and areas for fish cover and shelter.

7:13-3.7 Projects exposing deposits of acid-producing soils

(a) The requirements of this section apply only to deposits of acid-producing soils that are sometimes found in the following Coastal Plain geologic formations:

1. Raritan Formation;
2. Magothy Formation;
3. Merchantville Formation;
4. Woodbury Clay;
5. Englishtown Sand;
6. Marshalltown Formation;
7. Navesink Formation;
8. Red Bank Sand; and
9. Kirkwood Formation.

(b) The map showing the general location of these deposits can be found in the Technical Manual.

(c) The requirements of the section are applicable to projects under the jurisdiction of this chapter which shall affect deposits of acid-producing soil, whether or not encroachments are classified as "major" or "minor" in the 90-Day Construction Permit Rules (N.J.A.C. 7:1C).

(d) Where it is known in advance that deposits of acid-producing soils would be exposed by the proposed regulated activity, the application for a permit under this chapter shall include a written site evaluation prepared by a professional which identifies the extent of exposure, the applicant's plan to mitigate the impacts of such exposure, and the result of the special laboratory analysis of the soils, if required by (g) below.

(e) If, after the Department determines an application under this chapter complete for review, the Department or the applicant determines that deposits of acid-producing soils would be or have been exposed by the regulated activity, the Department may, time permitting, permit the applicant to amend the application by submitting a site evaluation and mitigation plan as described above within a time stipulated in writing by the Department, or deny the application on its merits. Ammended applications may be submitted in accordance with N.J.A.C. 7:13-4.7(g).

(f) If construction activity (pursuant to a permit issued under this chapter or otherwise) reveals deposits of acid-producing soils not described to the Department in an application for a permit to conduct regulated activities at the location containing such soils, the Department shall order the permittee, or other person as the case may be, to desist from further exposure of acid-producing deposits and to apply Department-specified mitigation measures to deposits already exposed, pending the Department's review and approval of a site mitigation and evaluation plan, and an application for a permit under this chapter, as the case may be.

(g) Special laboratory analysis requirements are as follows:

1. If the Department determines that deposits of acid-producing soils have been or will likely be exposed as a result of regulated activities proposed by an applicant, or as a result of activities undertaken by a permittee or undertaken illegally by a person who has not yet applied for a permit under this chapter, and the Department determines that it requires more information about characteristics of such deposits to approve or disapprove an application to conduct such regulated activities, the Department may require the permittee, or applicant as the case may be, to include in its site evaluation and mitigation plan the following chemical analysis of samples of deposits taken from pre-construction borings along the relevant sections of the watercourse channel or flood plain as stipulated by the Department. The following tests shall be performed by a State-certified Laboratory, using methods specified in the Technical Manual:

i. pH;

ii. Cation exchange capacity;

iii. Exchangeable cation content;

iv. Potential acidity; and

v. Extractable metals (Fe, Al, Mn, Cu, Zn, Ni, Cr, Cd, Pb) and sulfate.

2. The Department may also require laboratory analysis of physical characteristics of the soil. These chemical and physical tests shall be performed by a State-certified laboratory employed by the permittee or the applicant, as the case may be, in accordance with procedures specified by the Department in the Technical Manual. In the event an order has been issued stopping activities regulated pursuant to this chapter, no such activity may commence until the Department reviews the test results required under this section and approves an application under this section including the site evaluation and mitigation plan.

(h) When acid-producing deposits are to be or have been exposed, mitigation measures shall be taken by the person engaging in the regulated activity, including:

1. Minimizing the area and time of exposure of acid-producing soils;

2. Minimizing the spread or mixing of acid-producing soils onto or into soil free of such deposits and controlling the disposal of such deposits inside or outside the flood plain;

3. Covering deposits of acid-producing soils with limestone and non-acid-producing soil to permit the establishment of vegetation; and

4. Providing prompt, temporary and permanent stabilization of areas where acid-producing soils are exposed.

(i) When acid-producing soils are exposed within a watercourse channel or along watercourse banks within the jurisdiction of this chapter as the result of activities

regulated under this chapter, the person engaging in such activities shall undertake mitigation measures in order to:

1. Minimize the area and time of exposure;

2. Neutralize acid generated in the brief period of exposure; and

3. Keep post-construction oxidation rates from exceeding pre-exposure oxidation rates.

7:13-3.8 Freshwater wetlands

(a) Any disturbance of the vegetation or soil of more than one-quarter acre of freshwater wetlands located within the jurisdiction of this chapter contiguous to the watercourse constitutes a significant and adverse impact on the biota of the watercourse. A permit application which proposes such a disturbance shall not be approved by the Department unless the applicant demonstrates to the Department's satisfaction that:

1. The disturbance is absolutely necessary to construct the project or that the project cannot be redesigned to reduce or eliminate the disturbance and still meet the objective and purpose of the project; and

2. That effective measures shall be taken by the applicant to mitigate or replace wetlands to be disturbed or destroyed with wetlands of the same or higher quality.

(b) This section shall apply only to those areas located within the Hackensack Meadowlands Development Area.

7:13-3.9 Threatened and endangered species

(a) In addition to the other requirements set forth in this chapter, the Department shall issue a permit for an activity regulated under this chapter only if the activity will not adversely affect populations of species of threatened or endangered plants or animals documented in the areas under the jurisdiction of this chapter which are critically dependent on the watercourse to survive, and will not adversely affect their habitats located within the jurisdiction of this chapter, which habitats are either currently occupied by species of threatened or endangered plants or animals, or which are documented, historic habitat for threatened or endangered species of plants or animals and which remain suitable for breeding, resting, or feeding by those species of animal during any portion of their life-cycle. A survey for threatened and endangered species may be required if the proposed project will disturb an area documented to contain a threatened and endangered species, or nearby areas in which the habitat that can support these species is present. Persons seeking information pertaining to threatened

and endangered species occurrences on or near a project site may contact the "Natural Heritage Program", CN 404, Trenton, N.J. 08625-0404 (fee required).

(b) Those persons undertaking threatened and endangered plant or animal surveys/assessments on behalf of an applicant for a permit under this chapter shall possess the education and experience in wildlife biology, zoology or botany necessary to perform the required surveys/assessments. The Department may request additional information and/or surveys/assessments if it finds the surveys/assessments inadequate or that the minimum data have not been supplied. Threatened and endangered species surveys/assessments shall include the following data:

1. The name and address of all persons participating in the survey, the date and time of the investigation including total number of hours spent by each individual specifically for species observation, and the number of observers present on the site at any one time, including their location on the site relative to one another;

2. The site conditions during the survey and observation, that is, precipitation, wind speed and direction, and temperature, artificial or natural noises, nearest human activity or development to site, aside from the observers listed in (b)1 above;

3. The method and specifics of species sightings, indicating whether the subject was sighted directly or identified by call, track, scat, remains or other indirect evidence of presence, the date and time of each such sighting or discovery of evidence, and the relative age and condition of any indirect evidence observed and its location on the property. If the species is observed directly, note the number of individuals, activity of each when observed, each individual's sex and age, location of each individual observed on or near the project site, as the case may be, and the distance between the animals and the observer at each sighting;

4. A description of the techniques and methodology(s) employed by the observer during the site investigation;

5. The acreage of the surveyed area and breakdown of acreage as per habitat/cover type shown on the USGS Quadrangle map and NWI maps with site boundaries delineated;

6. A description of each habitat and cover type on site including vegetation, hydrology, soils and natural communities. These habitats shall be assessed for suitability and compatibility to the life history of the target species. If no target species are observed, a discussion of the site's suitability for the species shall be provided.

(c) If, while reviewing the merits of an application deemed complete for review without a threatened and endangered species survey/assessment, the Department

determines that the project or its construction would significantly damage or destroy threatened and endangered plants or animals or their current or historic habitats the Department shall, time permitting, either request the applicant to submit a threatened and endangered species survey to the Department within the time stipulated by the Department in accordance with the criteria outlined in (b) above or deny the application on its merits. Amended applications may be submitted pursuant to N.J.A.C. 7:13-4.7(g).

Subchapter 4. Application Procedure for Stream Encroachment Permits

7:13-4.1 Required information for all applications submitted to the Department

(a) The Land Use Regulation Program (LURP) permit application form shall be completed by the applicant or the applicant's authorized agent including all signatures and seals. Notarization is not necessary.

(b) The Engineering Data Sheet shall be completed and all required information for the type of project shall be supplied along with a copy of the completion check list and, where applicable, a copy of any pre-application conference minutes.

(c) The fee as required by the 90-Day Construction Permit Rules (N.J.A.C. 7:1C) shall be included with all applications for permits.

(d) Certification of notification required by N.J.A.C. 7:13-4.2 shall be submitted.

(e) Six sets of plans prepared in accordance with the requirements of this chapter outlined on the Engineering Data Sheet shall be submitted.

(f) A Soil Erosion and Sediment Control Plan shall be submitted.

(g) Two sets of color photographs showing the work area shall be submitted.

(h) Except for applications by public entities which have asserted the right of eminent domain, the applicant shall provide evidence of easements or other property owner's permission for any work outside the applicant's property or which will physically affect properties not owned or controlled by the applicant.

(i) Any application made pursuant to this chapter affecting any land within the Pinelands Area as defined in N.J.S.A. 13:18A-11 is not complete for review until the applicant submits to the Department a Certificate of Filing, a Certificate of Compliance or an Resolution of Approval from the Pinelands Commission for the proposed development and proposed activities on that land.

(j) Three copies of an environmental report bound or in loose-leaf form, on 8½ by 11 inch paper shall be submitted to the Department. All maps, plans and aerial photographs shall contain a north arrow, graphic scale, date of preparation, name of author, and source of information. The report shall contain a detailed environmental inventory and assessment which describes and documents in narrative and map form (including Soil Conservation Service soil maps) possible short and long term effects of each proposed activity upon the site as well as upon adjacent areas upstream and downstream. To the extent required to meet the requirements of this chapter, the report shall include:

1. A description of the scope and nature of the proposed activity including reasons why the proposed structures and their location are the most appropriate for the site and why they minimize to the greatest extent possible any adverse affects upon the pre-construction character of the site located within the jurisdiction of this chapter. The report shall also describe and analyze alternatives to the proposed activity, including the no-build option;

2. Temporary and permanent physical changes to the site which would result from the proposed activity and the impact of these changes on the areas within the jurisdiction of this chapter and the adjacent properties, including details regarding:

i. The effect of the project on public health, safety, and welfare; water quality and quantity; flood storage; existing and potential water uses; parks and/or preserves; vegetation, wildlife, and fisheries, including threatened and endangered species;

ii. All measures to be taken during construction and thereafter to reduce detrimental on-site and off-site effects of both construction and use of the structure in question; and

iii. Adverse environmental impacts which cannot be avoided or mitigated;

3. Project location using the State plane coordinate system;

4. For encroachments along trout-associated watercourses, the environmental report shall identify:

i. The method for disposing of sediment-laden pumpage from dewatering operations;

ii. Channel segments along which trees or shrubs shall be removed; and

iii. Places where construction vehicles shall operate on the banks of trout-associated watercourses and the physical character of the watercourse bed at such places;

5. For all proposed detention and retention basins under the jurisdiction of this chapter, the applicant's environmental report shall address the effects of the basin on the watercourse habitat (that is, what plants and animals will be disturbed or displaced, the degree of destruction or disturbance and how these effects shall be mitigated or remedied by the applicant), and whether or not the basin will contribute to or constitute a breeding habitat for mosquitoes;

6. A site evaluation and mitigation plan for acid-producing soils, where applicable;

7. A threatened and endangered animal and plant survey or habitat suitability assessment; and

8. An Environmental Report, prepared using an interdisciplinary approach, containing the identity and qualifications of the persons who prepared each element of the report. References to data, reports or treatises not contained completely in the Environmental Report shall be cited throughout the text as appropriate, and in a consistent manner. Complete copies of all documents cited in the report shall be made available to Department personnel, at the applicant's expense, upon reasonable advance notice.

(k) If applicable, the application shall include the date on which the proposed application was preconferenced with the Department pursuant to N.J.A.C. 7:13-4.3, and the name of the Department personnel who preconferenced the application.

(l) Any application which does not contain the information required in this section shall be considered incomplete and ineligible for review, or alternatively, shall be denied.

7:13-4.2 Notice

(a) The applicant shall provide notice to those persons described in (a)1 to 5 below, of the filing of an application for a permit under this chapter for projects considered a major project under the 90-Day Construction Permit Rules (N.J.A.C. 7:1C), for projects along trout associated watercourses, for projects exposing acid-producing soils, for projects requesting a hardship exemption and for an appeal of the Department's decision on an application deemed complete for review. The notice shall include a description of the nature and location of the proposed project, data on the application, (a copy of the completed Land Use Regulation Program (LURP) permit

application form will be acceptable to fulfill these requirements) and a request that written comments be sent to the Department at the address stipulated at N.J.A.C. 7:13-1.5. The notice shall be sent to the following agencies and individuals:

1. The municipal planning board, engineer, construction official, environmental commission and clerk's office of the municipality in which the project is located. Also the municipality across the watercourse and the municipality next downstream on both sides of the waterway, if within one mile of the project must be notified;

2. All property owners within 200 feet of the legal boundary of the property or properties on which the project shall be constructed;

3. The county planning board, county engineer, county environmental commission and county mosquito control commission;

4. The local county Soil Conservation District; and

5. Any other agencies or bodies as requested by the Department or the county.

(b) If the proposed project is a linear facility such as a pipeline or road of more than one-half mile within the jurisdiction of this chapter and requires notices pursuant to (a) above, instead of notifying all property owners within 200 feet of the property lines, the applicant may instead give public notice of the filing of the application in at least one newspaper of local circulation and one newspaper of regional circulation in the municipality in which the property on which the proposed project is located. In addition, notice shall be given to the owners of all real property within 200 feet of any above-surface structure related to the linear facility, such as pumping stations, treatment plants, power substations, grade separated interchanges or similar structures (not including utility support structures or conveyance lines) which are also located within the jurisdiction of this chapter.

7:13-4.3 Pre-Application conference

(a) A pre-application conference is not required of the applicant but is highly recommended. Department staff will advise the applicant of the areas in which the project may or may not comply with the requirements of this chapter, but under no circumstances shall any discussion at such a meeting compel or estop the Department from approving or denying any application submitted to it for a permit under this chapter.

(b) Pre-application conference requests shall be made in writing by the applicant or its authorized agent and directed to the chief of the region in which the proposed project shall be located at the address stipulated in N.J.A.C. 7:13-1.5. The request shall

include sufficient maps, plans, photographs, surveys or other related information to allow the Department to identify major areas of concern under the regulations which might apply to the project.

(c) All applications for permits submitted as a result of such conferences shall list the date of the conference(s) and parties present at each such conference.

(d) A pre-application conference may also be used to deliver an application to the Department to be checked for administrative completeness.

(e) If the proposed project will require other permits from the Department, it is strongly recommended that the applicant first contact the Office of Permit Information and Assistance before filing any single permit application in order to properly coordinate the entire permitting process.

7:13-4.4 Over-the-counter permit processing

One day permit processing is available for certain minor applications to the extent provided for in the 90-Day Construction Permit Rules (N.J.A.C. 7:1C), Department workload permitting.

7:13-4.5 Optional Soil Conservation District review

Certain farming practices which would otherwise constitute regulated activities may be reviewed by the local Soil Conservation District as authorized by the agreement between the Department and the State Soil Conservation Committee in September 1978, entitled "Stream Encroachment Permit Procedures for Soil Conservation District Projects" and any subsequent amendments thereto. A recommendation of approval from the Soil Conservation District under the authority conferred upon the District in this agreement and the engineering plans relied upon by the District in making its recommendation shall be forwarded to the Department.

7:13-4.6 Emergency permit

(a) The Department may issue an emergency permit for a regulated activity only if:

1. Severe environmental degradation will occur or an undue and immediate risk of loss of life or substantial loss of property is more probable than not if the permit is not granted; and

2. There is a high probability that the anticipated threat or loss will occur before the Department can review an application and issue a permit under procedures otherwise required by the Acts, this chapter and other applicable State laws.

(b) The emergency permit shall incorporate the regulatory standards and criteria for non-emergency uses to the greatest extent permissible under the circumstances unique to the site.

(c) Persons applying for an emergency permit shall:

1. Inform the Department by telephone (and if possible facsimile letter) of the nature and extent of work to be performed, the nature and reason for the emergency, the period of time the applicant knew of the circumstances which underlie the emergency, the precise location of the proposed work, the identity of the property owner and whether said owner has given his or her permission for the work to be done;

2. Expeditiously perform the emergency work permitted authorized by the program Administrator or his or her acting designate and advise all planning boards, authorities and nearby property owners, as described in N.J.A.C. 7:13-4.2(a), of the work as soon as possible. The applicant shall also immediately advise the Administrator if the work authorized shall not be done and the reasons why. A verbal permit shall be verified by the Department in writing. Under no circumstances shall the Department or its personnel be liable for any damage to property or loss of life incurred by the applicant or any other nearby property owner as a result of the emergency work authorized under this section; and

3. Upon completion of the work in accordance with the Department's instructions, the applicant shall file a complete application with appropriate fees and "as-built" drawings for Department review to determine if modifications which may include mitigation or stabilization measures are required under this chapter. Upon completion of the review, a formal permit will be issued.

7:13-4.7 Permit application review procedures

(a) Within a maximum of 20 State working days following the date of receipt of an application for a permit under this chapter (other than an emergency permit), the Department shall:

1. Accept the application for filing, assign an agency project number to it, classify the application complete for review and proceed to review it on the merits;

2. Accept the application for filing, assign an agency project number to it, but classify the application as incomplete and request in writing that the applicant submit

within a specific period of time specific information to assist the Department in its review of the substantive merits of the application. In such cases, the application will not be considered complete for substantive review until all the information requested by the Department has been received; or

3. Return the application without filing, explaining why it is unacceptable for review, and return the filing fee (if any) if the applicant advises the Department that it does not intend to reapply.

(b) Following the assignment of the agency project number, a report of the "20-day" status of the application pursuant to (a) above will be published in the DEPE Bulletin.

(c) If, while reviewing the merits of an application deemed complete for review, the Department determines that further information is required from the applicant to assess the accuracy of statements in the application or to otherwise determine whether the proposed regulated activity complies with these rules, the Department may, time permitting, permit the applicant to amend the application by submitting this additional information within a specified time, or, deny the application on its merits. Amended applications for permits may be submitted pursuant to (g) below.

(d) The Department shall approve, condition, or disapprove an application within 90 days following the date of receipt of a complete application as described at (a) above. If the Department fails to take action on an application within the specified 90-day period, the application shall be deemed to have been approved, to the extent that the application does not violate other statutes or regulations then in effect and subject to any standard conditions that apply to the type of development involved.

(e) The Department will grant a one-time 30-day extension of time to the 90-day review period if agreed to by both the applicant and the Department, provided that the applicant or the Department requests, from the other, such an extension either by telephone or in writing prior to the expiration of the 90-day review period. Telephone applications for an extension made by an applicant must be made to the Region head in charge of such applications at the Department or his or her designated agent.

(f) Permits under the jurisdiction of this chapter are valid for five years. If no construction has begun at the end of the five years, application for a new permit is required if the applicant still wishes to undertake the project. The project shall comply with the requirements in effect at the time the newest application for a permit is deemed complete for review. If construction has begun but has not been completed at the end of five years, construction shall cease until the Department has reviewed the applicant's application for a new stream encroachment permit. In that application, the

project shall be revised to the greatest extent possible to meet the regulatory requirements in effect at that time.

(g) In the event of a Department denial of an application under this chapter or an applicant's withdrawal of such a permit application, the applicant may, only once, submit an amended application for reconsideration or an amended application containing a request for a hardship waiver under N.J.A.C. 7:13-4.8, one or the other, within one year of the date of the Department denial and have the previously submitted fee credited to the new application. Additional applications for reconsideration, additional amended applications or requests for hardship waivers shall require the regulatory processing fee in order to be accepted for filing by the Department.

7:13-4.8 Hardship waivers

(a) A waiver from strict compliance with the requirements of this chapter may be granted by the Department for any of the following reasons:

1. Cases in which the Department determines that there is no feasible and prudent alternative to the proposed project, including the no-action alternative, which would avoid or substantially reduce any anticipated adverse effects and where the waiver is consistent with the reasonable requirements of the public health, safety and welfare;

2. Cases in which the Department determines that the costs of strict compliance are unreasonably high in relationship to the benefits achieved by strict compliance; or

3. Cases in which the Department and applicant agree to alternative requirements that, in the judgment of the Department, provides better protection to the public health, safety and welfare.

(b) A public hearing concerning the waiver application shall be required upon request by the Department or at least five members of the public.

(c) Except as otherwise provided in this chapter, a delegated agency may grant waivers in accordance with this subsection. Where granted, such waivers are subject to the appeal procedures in N.J.A.C. 7:13-4.10.

(d) In order for the Department to grant a hardship waiver, the applicant shall demonstrate the following:

1. That by reason of the extraordinary or exceptional situation or condition of the property, the strict enforcement of this chapter would result in exceptional and undue hardship upon the applicant in question;

2. That the waiver will not substantially impair the appropriate use or development of adjacent property and will not pose a threat to the environment or public health, safety and general welfare; and

3. That the exceptional or undue hardship claimed as grounds for the waiver has not been created by the applicant or persons under his or her control.

(e) The applicant shall submit with an application for a hardship waiver as much of the following information as is relevant to the project:

1. A plan for flood proofing the structure to be constructed, the implementation of which shall be a condition of the waiver;

2. Proof that appropriate steps shall be taken to anchor structures as mandated by the Uniform Construction Code and local building and construction codes in order to prevent flotation, collapse, or lateral movement;

3. An analysis of the consistency between the proposed project and the goals, objectives and limitations of the comprehensive land use plan and flood plain program applicable to the area;

4. Proposed routes to and from the property during floods;

5. The projected height, velocity and duration of the flood waters expected at the site during the regulatory flood;

6. The type of soil(s) at the proposed site;

7. A statement concerning the current and post-construction land use and value assuming the waiver is granted, including a present-worth cost benefit analysis, and the same analysis assuming denial of the hardship waiver;

8. A description of the existing development in the area and the impact of the proposed work on that development;

9. Evidence that the project will not distort or reduce the affected watercourse's flood carrying capacity so as to cause significant flooding problems both upstream and downstream from the proposed project;

10. An analysis of the extent to which the sediment regime and water quality of the watercourse will be affected by the proposed waiver; and

11. A description of the potential effects of the project upon the environment, assuming the waiver is granted.

(f) The applicant shall also submit proof of public notice for consideration for a hardship waiver as required by N.J.A.C. 7:13-4.2.

(g) The applicant shall submit the request for a waiver along with the appropriate documentation to the Department.

1. The Department shall notify the applicant of the results of its review within 90 days of the receipt of an application deemed complete for substantive review by the Department.

2. Before making a decision on a request for a waiver of strict compliance, the Department may request the applicant to provide additional information and/or documentation as provided in N.J.A.C. 7:13-4.7(a).

(h) The denial of a waiver shall be without prejudice. However any additional application for relief under this section shall be accompanied by a new fee in order to be accepted for filing by the Department.

(i) A hardship waiver granted pursuant to this section does not relieve the applicant from obtaining any other approvals, certifications or permits required by Federal, State or local law.

7:13-4.9 Permit modification procedures

(a) There shall be no modifications to Department-approved plans or any permit condition without the express written permission of the Department. Six sets of plans accompanied by a letter requesting the modification and a fee as specified in the 90-Day Construction Permit Rules (N.J.A.C. 7:1C) are required to apply for modification of a permit condition or any approved plan. Except for additional watercourses added to watercourse cleaning permits pursuant to 7:13-2.5(b), only items already approved on the original permit may be modified.

(b) Modifications to Department-approved projects that will affect the hydraulic capacity of the watercourse shall not be considered or approved by the Department under this section. Such modifications must be contained in a new application for a new Permit and must comply with the regulations in effect on the date that the new permit application is deemed complete for review.

7:13-4.10 Appeal procedure to the Department

(a) Subject to the limitation on third-party hearing rights specified in (e) below, any person who considers himself or herself aggrieved by the approval or denial of an application for a permit may, within 10 days of publication of notice of the decision in the DEPE Bulletin, or within 10 days of publication of notice of the decision by the permittee pursuant to (b) below, whichever occurs first, direct a written request for a hearing to the Office of Legal Affairs, ATTENTION: Adjudicatory Hearing Requests, Department of Environmental Protection, CN 402, Trenton, New Jersey 08625-0402.

1. The written request for a hearing on appeal shall include the appropriate agency project number and, where the appeal is taken by someone other than the applicant, evidence that a copy of the written request for hearing an appeal has been mailed to the applicant/permittee.

2. Within 14 days of the date on which the initial request for a hearing was postmarked, the person appealing the decision shall submit an additional statement describing, in detail, how that person is aggrieved by the decision, and which findings of fact and conclusions of law are being challenged.

(b) A permittee may publish notice of the Department's final decision in a newspaper of Statewide circulation and a newspaper of regional circulation which includes the municipality in which the project site is located. The permittee shall provide a copy of the Department's decision to any person who requested such notice by certified mail. The Department shall maintain a list of such newspapers and a list of all persons who have requested notice of the decision.

(c) Pending appeal of the Department decision and the Commissioner's final decision on the appeal, a person may apply to the Commissioner for a stay of the issuance of a permit by written request and for good cause shown therein. The Commissioner may stay the issuance of the permit upon such terms and conditions as the Commissioner may deem proper in his or her sole discretion. The request for stay of issuance of the permit shall be made within 21 days of the issuance of the Department approval of the permit application.

(d) When a request for a hearing concerning a Department decision on a permit application has been granted by the Department, the request shall be referred to the Office of Administrative Law for a fact-finding hearing if required pursuant to the Administrative Procedure Act (N.J.S.A. 52:14B-1 et seq.), after which, the Commissioner shall issue a final decision adopting, rejecting or modifying the findings of fact and conclusions of law of the administrative law judge, within the time frame specified in N.J.S.A. 52:14B-10.

(e) Nothing in this section shall be construed to provide a right to an adjudicatory hearing in contravention of N.J.S.A. 52:14-3.1 through 3.3 (P.L. 1993, c.359).

7:13-4.11 Permit application review by delegated

When authority to approve certain types of regulated activities is delegated in writing by the Department to another agency under provisions of this chapter and the Acts, that agency shall apply the standards and criteria of this chapter to all matters arising under the jurisdiction of this chapter which have been delegated to that agency.

Subchapter 5. Implementation

7:13-5.1 Consistency with other requirements in permit review

(a) A permit under this chapter is expressly conditioned upon the permittee complying with all other applicable Federal, State and local statutes, rules and regulations, orders, standards, plans, and ordinances which may apply to the work necessary to accomplish the proposed project, and obtaining all other permits, licenses or approvals required for the work which is a part of the proposed project. The issuance of a permit pursuant to this chapter shall not obligate the Department to grant or deny an application by the permittee for any other license, permit or approval issued by the Department.

(b) In cases where the Department has not delegated authority under N.J.A.C. 7:13-5.3, no local agency or employee thereof shall grant any application for development as defined in the "Municipal Land Use Law" (N.J.S.A. 40:55D-1 et seq.) for an activity regulated under this chapter until an application for a permit under this chapter has been approved by the Department. The Department will consider this provision satisfied if the local approval is conditioned upon obtaining a permit under this chapter.

7:13-5.2 Creation of a county water resources association

The governing body of any county may, by ordinance or resolution, as the law may provide, create a county water resources association to discuss and coordinate county flood control and water management programs, to advise the county governing body on these issues and to undertake any other such duties concerning water management as the county governing body may legally delegate to it by ordinance or resolution. Members of this Association shall be appointed by the county governing body and may include the chief administrative officer or executive of any county planning agency, county engineer's office, county utility authority, county health department, county mosquito commission, county soil conservation district, county parks agency and any other person with relevant experience or training.

7:13-5.3 Delegation of power to counties

(a) Except as otherwise expressly provided in this chapter, the Department may delegate its authority to review and decide any application made to it pursuant to this chapter as well as its power to enforce any aspect of its legal obligations arising under the Acts to a county governing body which shall expressly agree to accept such designation, and follow the rules stated herein, and which, in the Department's judgment, retains those employees with professional training and education capable of properly administering the provisions of this chapter.

1. A county wishing to apply for authority to issue permits pursuant to the provisions of this chapter or to undertake enforcement of any of the provisions of this chapter shall submit a written request to the Department and specifically describe those aspects of the permitting and enforcement authority of the Department under this chapter which it wishes to assume. The county shall also submit evidence of a formal approval by the county governing body agreeing to apply for delegation of the authority or obligations described in the application and agreeing to adopt, in the event the request is granted, an ordinance or resolution containing all provisions of this chapter relevant to the duties and obligations to be assumed by the county. The request shall also describe in detail the personnel, physical resources and source and amount of funding by which the county shall fulfill the obligations the county wishes to assume.

2. A county to which permitting authority or enforcement obligations have been delegated pursuant to this subsection shall preserve, for the Department review, all documents, plans, maps, memoranda and notes as necessary which document that it has discharged its delegated duties in accordance with the applicable provisions of this chapter.

3. The Department shall review the county records pertaining to all duties delegated to the county under this subsection at least once every 365 days after the date of the formal delegation of duties to the county, and may at any time revoke such delegation if, in the judgment of the Department, the county has failed to properly administer powers delegated to it, which may include a failure to maintain the records stipulated in (a)2 above.

4. The county governing body to which permitting functions under this chapter have been delegated shall not charge fees in excess of those promulgated by the Commissioner pursuant to N.J.S.A. 13:1D-33.

(b) The Department shall not delegate the powers to review or decide any application for a permit pursuant to this chapter filed by a State agency.

7:13-5.4 Penalties

Any person who violates a provision of this chapter shall be subject to penalty and injunctive relief, as applicable, pursuant to N.J.S.A. 58:16A-63 and 58:10A-1 et seq.

Subchapter 6. (Reserved)

Subchapter 7. Delineated Floodways

7:13-7.1 Delineated floodways

(a) The streams listed in (b), (c), (d), (e), (f) and (g) below have been delineated following public hearings by the Water Policy and Supply Council, and information concerning these delineations is one file in the offices of the Division of Water Resources:

1. Type 1: A flood hazard area map has been prepared setting forth floodway limits and extent of flood hazard area limits. Water surface profiles are included for both the floodway and flood hazard area design floods.

2. Type 2: There is no flood hazard area map available. Delineation must be determined on a case by case basis from the water surface profile which have been developed for both the floodway and flood hazard area design floods.

(b) A list of delineated streams in the Atlantic Basin follows:

	Council adoption date	Stream	Limits	Type
1.	9-17-73	Long Swamp Creek	Mouth to 0.88 miles upstream of Bea Lea Road	2
2.	9-17-73	Ridgeway Branch Toms River	Mouth to Route 547	2
3.	9-17-73	Union Branch Toms River	Mouth to Lake Road	2
4.	9-17-73	Toms River	Mouth at Route 166 to Route 70	2
5.	10-27-78	Mullica River	Mullica River from State highway Route 542 upstream to the outlet at Atison Lake, just above Route US 206 within the Town of Hammonton and the Township of Mullica in Atlantic County and the Townships of Shamong and Washington, Burlington County. The flood hazard area of the Upper	1

			Mullica River (Atsion Branch) from the Atsion Lake Dam at U.S. Route 206 upstream to the Jackson-Medford Road, an approximate distance of 8.8 miles, within the Townships of Medford and Shamong, Burlington County and the Township of Waterford, Camden County.	
6. 10-27-78	Cedar Creek	Cedar Creek from Route US 9 upstream to the outlet of Bamber Lake, just above Lacey Road within the Townships of Berkeley and Lacey, Ocean County. The flood hazard area of the Chamberlain Branch of Cedar Creek from the Bamber Lake Dam upstream to Route 539, Webbs Mill Branch from its confluence with Chamberlain Branch to approximately 3000 feet upstream from Route 539, and Factory Branch of Cedar Creek from its mouth upstream to an improved road, all within the Township of Lacey, Ocean County.	1

Council adoption date	Stream	Limits	Type
7. 12-12-80	Great Egg Harbor River	The Great Egg Habor River from the Lake Lenape Dam in Hamilton Township, upstream to the Conrail Bridge, formerly the pennsylvania - Reading Seashore Railroad in Winslow Township and its floodway from State Route 54 to the upstream Folsom Borough boundary and from the New Brooklyn Lake Dam upstream to the Conrail Bridge in Winslow Township; Hospitality Branch From its mouth at the confluence with the Great Egg Harbor River upstream to the head of	1

		Spruce Lake in Monroe Township and its floodway from State Route 54 to the upstream Folsom Borough boundary and from Sharp Road upstream to the head of Spruce Lake; Four Mile Branch from its mouth at the confluence with the Great Egg Harbor River upstream 27,800 feet to a point 800 feet upstream from an unimproved road in Monroe Township and its floodway within this reach; and Squankum Branch from its mouth at the confluence with the Great Egg Harbor River Upstream to Walnut Street in Monroe Township all within the Borough of Folsom and Township of Hamilton, Atlantic County.	

Council adoption date	Stream	Limits	Type
8. 12-12-80	Mullica River	The Mullica River from approximately 2700 feet downstream from the Green Bank-Weekstown Road upstream to Route 542 between Mullica Township, Atlantic County, and Washington Township, Burlington County; Landing Creek from approximately 3000 feet downstream from Philadelphia Avenue upstream to Hamburg Avenue; Union Creek from its mouth at the confluence with Landing Creek upstream to Bremen Avenue; and Union Creek Tributary from its mouth at the confluence with Union Creek upstream to City Line Road, all within Egg Harbor City, Atlantic County; Cedar Brook from the Wharton State Forest Boundary upstream to Liberty Street in the Town of	

		Hammonton, Atlantic County; Pump Branch from the Waterford-Blue Anchor Road upstream to the Conrail Bridge, formerly the Pennsylvania-Reading Seashore Railroad, in the Township of Winslow, Camden County; and the West Branch Wading River from the Lake Chatsworth Dam upstream to a culvert at the Lebanon State Boundary in the Township of Woodland, Burlington County. The Tuckahoe River for State Route No. 49 near Head of River upstream to the Weymouth-Buena Vista Township Boundary, an approximate distance of 9.9 miles within the Township of Estell Manor and Weymouth, Atlantic County; Township of Maurice River, Cumberland County; and Upper Township, Cape May County.	
Council adoption date	Stream	Limits	Type
10.	Manasquan River	The floodway and flood hazard area of the Manasquan River from Southard Road in Howell Township to approximately 2,200 feet upstream of Georgia Road in Freehold Township, including the following tributaries in Howell Township from their confluence with the Manasquan River: Bannen Meadow Brook upstream approximately 6,000 feet Long Brook upstream approximately 17,400 feet to Route 33, and Bill's Brook upstream approximately 2,300 feet to the Adelphia-Farmingdale Road; and in Freehold Township: Tributary A upstream 5,150 feet, Tributary B	

upstream 9,100 feet to Winchester Drive, Tributary C upstream 9,200 feet to upstream from Old Post Road, Debois Creek upstream to Center Street, and its following tributaries from their confluences with Debois Creek: unnamed Tributary Debois Creek upstream 2,760 feet to Three Brook Road, Burkes Creek upstream 3,600 feet, and Applegates Creek upstream to Willow Brook Road; a portion of the North Branch Metedeconk River from the downstream Howell Township Municipal boundary to the upstream municipal boundary of Howell and Jackson Townships in the Townships of Howell, Jackson and Lakewood, and its following tributaries from their confluence with the North Branch Metedeconk River in Howell Township: Gravelly Run upstream 2,650 feet, Hay Stack Brook upstream 27,870 feet to upstream from the Maxim-Southard Road, Ground Hog Brook from its confluence with Hay Stack Brook upstream 3,000 feet through Lake Louise to a point 300 feet downstream from Locust Avenue, and Polipod Brook from its confluence at Lake Louise upstream 800 feet; Yellow Brook from the downstream Freehold Township boundary upstream to Randolph Road, and an unnamed Tributary Yellow Brook from its confluence with Yellow Brook upstream to Paulette Road; and the follow-

adoption date	Stream	Limits	Type
		ing tributaries of Toms River, its Union and Ridgeway Branches: tributary of Ridgeway Branch from its confluence upstream to Wilbur Avenue, Manapaque Brook from its confluence with Union Branch upstream to Route 547, Hurricane Brook from its confluence with Union Branch at Lake Horicon upstream to the head of the lake, Davenport Branch from the downstream Manchester municipal boundary upstream to Lacey Road (Route 530), all in Manchester Township; Toms River Tributary from Burnt Tavern Road (Route 547) upstream approximately 7,800 feet in Jackson Township and Jake's Branch from Route 9 to upstream from the Double Trouble Road in Beachwood and South Toms River Boroughs; and amending the floodway and flood hazard area of the Toms River, Main Branch from the downstream to the upstream Manchester Township municipal boundaries in Dover and Manchester Townships, its Union Branch from its confluence with Toms River, upstream to Route 70, and its Ridgeway Branch from its confluence with Toms River upstream to Route 547, and the following from the downstream municipal boundary of Freehold Township: McGelliard's Brook upstream to Gordons Corner Road, South Branch Tepehemus Brook upstream to Robertsville Road, Weamaconk Creek upstream to Gordons Corner Road, and Wemrock Brook upstream to Route 33, all in Freehold Township.	

Council adoption date	Stream	Limits	Type
11.	Swimming River	The floodway and flood hazard areas of the Swimming River from Newman Springs Road upstream to Swimming River Road in the Borough of Tinton Falls, and its tributaries including: Yellow Brook from its confluence with Swimming River Reservoir upstream to its upstream corporate limit in Colts Neck, a tributary to Yellow Brook from its confluence with Yellow Brook upstream 3,600 feet in Colts Neck, Mine Brook from its confluence with Yellow Brook upstream to Mercer Road in Colts Neck, Marl Brook from its confluence with Mine Brook upstream 4,950 feet in Colts Neck, and Willow Brook from its confluence with the Swimming River Reservoir upstream through Colts Neck, Marlboro and Holmdel to Shank Road in Holmdel, Hop Brook from its confluence with Willow Brook upstream to Long Street Road in Holmdel, and Pine Brook from its confluence with Swimming River upstream to Water Street in Tinton Falls and Colts Neck, Hockhockson Brook from its confluence with Pine Brook upstream 4,500 feet to Hockhockson Road in Colts Neck, Big Brook from its confluence with Swimming River Reservoir upstream to a point 3,400 feet upstream of Route 34 in Colts Neck, and Barren Neck Creek from its confluence with Swimming River Reservoir upstream	

		approximately 4,600 feet in Colts Neck; Parkers Creek from the downstream, corporate limit upstream through Eatontown. Shrewsbury and Tinton Falls to the Conrail Bridge in Tinton Falls, and its tributaries including: Wampum Brook from the western boundary of Fort Monmouth upstream 5,630 feet to Camp Charles Wood Area in Eatontown, and North Branch Parker Creek from its confluence with Parkers Creek upstream to Broad Street in Shrewsbury; and Jumping Brook from Jumping Brook Road upstream 6,150 feet in Tinton Falls; Whale Pond

Council adoption date	Stream	Limits	Type
		Brook from Norwood Avenue upstream to Hope Road affecting Eatontown, West Long Branch and Township of Ocean; and Waackaack Creek from its downstream corporate limit in Holmdel (approximately 1,300 feet downstream from Middle Road) upstream 3,750 feet to Palmer Avenue, and its tributary, Mahoras Brook from its confluence with Waackaack Creek upstream 5,500 feet in Holmdel.	

(c) A list of delineated streams in Delaware Basin follows:

Council adoption date	Stream	Limits	Type
1. 6-18-73	Crosswicks Creek	Route 206 to Oakford Lake	2
2. 7-16-73	Big Timber Creek	Mouth to confluence with north and south branches of Big Timber Creek. The flood hazard area of the Big Timber Creek from Route 295 in Deptford Township. Gloucester County and Bellmawr Borough, Camden County upstream through Deptford and Bellmawr and the Borough of Runnemede and the Township of Gloucester, Camden County to its confluence with South Branch Big Timber Creek: South Branch Big Timber Creek from its confluence with Big Timber Creek to the downstream Washington Township Gloucester County-Gloucester Township, Camden County Corporate limit all within the Townships of Deptford and Washington, Gloucester County and the Township of Gloucester, Camden County and the South Branch Big Timber from the upstream Washington-Gloucester Corporate boundary to Redwood Street within Washington Township, Gloucester County and Gloucester Township, Camden County; Mantua Creek from its confluence with the Delaware River upstream to Bridgewater Pike (Route 45) within the Townships of West Deptford. East Greenwich and Mantua and the Borough of Paulsboro, Gloucester County, and Mantua Creek from Route 47 to Fish Pond Road within the Township of Washington and the Borough of Glassboro, Gloucester County; Edwards Run from its confluence with	2

		Mantua Creek to a point approximately 740 feet upstream of the New Jersey Turnpike within the Township of Greenwich, Gloucester County; Duffield Run from its confluence with Mantua Creek at Kressey Lake to a point approximately 1,370 feet upstream from the Kandle Lake Dam, within the Township of Washington, Gloucester County; Woodbury Creek from its confluence with the Delaware River upstream 17,200 feet or to approximately 800 feet downstream from	

Council adoption date	Stream	Limits	Type
		Route 45 within the Township of West Deptford, the Borough of National Park, and the City of Woodbury, including the Hazard Area along Hessian Run from its confluence with Woodbury Creek upstream to Belmont Avenue within the Township of West Deptford and the Borough of National Park, Gloucester County.	
3. 7-16-73	South Branch Big timber Creek	Mouth to Blackwood Road	2
4. 7-16-73	North Branch Big Timber Creek	Mouth to Blackwood Road	2
5. 7-16-73	Clementon Run	Mouth to Laurel Road	2
6. 7-16-73	Little Timber Creek	Mouth to I-295	2
7. 8-20-73	Pennsauken Creek	Mouth to confluence with north and south branches Pennsauken Creek	2
8. 8-20-73	South Branch Pennsauken Creek	Mouth to Old Marlton Pike	2

Council

adoption date	Stream	Limits	Type
		The floodway and flood hazard area of the South Branch of Pennsauken Creek from the Evesham Township corporate boundary to 1,500 feet upstream from the Marlton Pike; South Branch Rancocas Creek from its mouth upstream to Bug Hill Road, and Southwest Branch Rancocas Creek from its mouth upstream to Bon Air Drive; and by adding to it the floodway and flood hazard area of Masons Creek from its mouth upstream to the Mount Laurel-Eayrestown Road; Bobbys Run from its mouth upstream to the Mount Holly-Eayrestown Road; South Branch Tributary from its mouth upstream to the Mount Laurel-Eayrestown Road in Lumberton Township; Little Creek from its mouth to 4,200 feet upstream from Route No. 70; Jade Run from its mouth upstream to the Southampton-Pemberton Township Boundary; Beaver Dam Creek from its mouth upstream to Route No. 206; Friendship Creek from its mouth upstream to Route No. 70; Skeet Run from its mouth upstream to Hawkin Road; Sharps Run from its mouth upstream to Hartford Road; Haynes Creek from its mouth upstream to the Medford-Evesham Townships Boundary; Ballinger Run from its mouth upstream to the head of Lake Stockwell, Ballinger Run Tributary from its mouth upstream to Birchwood Drive; Lake Mishe-Mokwa Run from its mouth upstream to Hiawatha Trail; Blue Lake Run from its mouth upstream to the Meford Township Boundary at the head of Blue Lake; Taunton Lake Tributary from its	

		mouth upstream to Centennial Avenue; Mimosa Lake Run from its mouth upstream to Scout Drive; Barton Run from its mouth upstream to the Evesham Township Boundary at the head of Kenilworth Lake; Barton Run Tributary No. 1 from its mouth upstream to New Road; Barton Run Tributary No. 2 from its mouth upstream to Taunton Lake Road; Black	

Council adoption date	Stream	Limits	Type
		Run from its mouth to a Private Drive 12,000 feet upstream, Black Run Tributary from its mouth upstream to Braddock Mill Road; Kettle Run from the Evesham Township corporate boundary upstream to the head of Marlton Lake; Cropwell Brook from its mouth upstream to North Cropwell Road, Bisphams Mill Creek from Route No. 70 to Cooper Road; Shinns Branch from its mouth to 2,900 feet upstream and Burr's Mill Brook from a new road under construction to 7,800 feet upstream.	
9. 8-20-73	North Branch Pennsauken Creek	Mouth to New Jersey Turnpike including Strawbridge Lake	2
10. 8-20-73	Mantau Creek	Mouth to one-half mile upstream of the Glassboro-Crosskeys Road	2
11. 8-20-73	Chestnut Branch	Mouth to Pennsylvania-Reading Seashore lines railroad in the Boro of Glassboro	2
12. 8-20-73	Edwards Run	Mouth to 2.6 miles upstream from Jackson Rd.	2
13. 8-20-73	Plank Run	Mouth to 0.15 miles upstream from	2

			Route 322	
14.	5-20-74	Shabakunk Creek	Mouth to Bull Run Road	2
15.	5-20-74	West Branch Shabakunk Creek	Mouth to Upper Ferry Road	2
16.	5-20-74	Little Shabakunk Creek	Mouth to Rider College drive	2
			Upstream from the Reading Railroad	
17.	12-15-75	Delaware River	Calhoun Street Bridge to Tocks Island	2

Council adoption date	Stream	Limits	Type
		The Delaware River from the downstream Burlington Township boundary upstream to its confluence with Crosswicks Creek within the Townships of Burlington, Florence, Mansfield and Bordentown and the Borough of Fieldsboro, including the back channel around Newbold Island, but excluding the reach within the City of Burlington, all in Burlington County; Doctors Creek within the Borough of Allentown and its tributary Indian Run from 1260 feet downstream from Church Street to the upstream Allentown Borough boundary between Allentown Borough, Monmouth County and Washington Township, Mercer County; Blacks Creek from its confluence with the Delaware River upstream to Route No. 206 within Bordentown City and Township, within the County of Burlington; Crosswicks Creek from its confluence with the Delaware River upstream 4300 feet within the City of Bordentown, Burlington County and from Route No. 537 to the upstream Plumsted Township boundary,	

		within Plumsted Township, Ocean County; Mill Creek from the downstream Burlington Township boundary upstream to Route I-295 within Burlington Township and Westampton Township, Burlington County; Crafts Creek from its mouth upstream to Route No. 130 within Florence and Mansfield Township, Burlington County; Bustleton Creek from the downstream Florence Township boundary upstream to Route No. 130 in Florence Township, Burlington County; and Stonyford Brook from its confluence with Crosswicks Creek upstream to Moorehouse Road, within the Township of Plumsted, Ocean County.	
Council adoption date	Stream	Limits	Type
		The floodway and flood hazard area of the Delaware River from the downstream corporate limit in Ewing upstream to the Hopewell Township, Mercer County corporate limit; Shabakunk Creek from 1,800 feet downstream of Colonial Lake Dam upstream to Bull Run Road; West Branch Shabakunk Creek from its mouth at the junction with the Shabakunk Creek upstream to a point 2,000 feet upstream of Carlton Avenue; the Little Shabakunk Creek from approximately 500 feet above its confluence with Assunpink Creek upstream 16,950 feet to the Rider College Driveway culvert immediately upstream from the Reading Railroad	

		tracks; Rocky Brook from U.S. Route 130 upstream 7,100 feet through a portion of Peddie Lake; the Stony Brook tributary to the Millstone River from Province Line Road upstream to State Route 518; and Beden's Brook from a point 360 feet downstream of Province Line Road upstream to a driveway culvert 300 feet downstream of the Route 518 culvert in Hopewell Borough and add to it the floodway and flood hazard area of Jacobs-Ewing Creek from its confluence with the Delaware River upstream to Scotch Road within the Townships of Ewing and Hopewell, Mercer County, New Jersey.	
18. 7-14-75	Rancocas Creek	Centerlyn Bridge to junction of North and South Branches	2

Council adoption date	Stream	Limits	Type
i. 12-17-79	Rancocas Creek, North Branch Rancocas Creek, Rancocas Creek, Mill Creek, South Branch Mill Creek, Tributary to Mill Creek, Tributary of Mill Creek, Tributary to Assiscunk Creek, Mill Race and Mt. Holly By Pass Channel, Buttonwood Run, Budds Run, Mount Misery Creek, Mirror Lake, Little Pine Lake, Jefferson Lake, Cranberry Branch, Pole Bridge Branch, Tributary to Pole Bridge, Tributary to Country Lake and Baffin Brook.	The Rancocas Creek from Bridge Street (Centerton Bridge), upstream to the confluence with the North and South Branches of the Rancocas Creek and the North Branch Rancocas Creek from its mouth upstream to the Lakehurst Road (Pemberton-Browns Mills Road); and the delineation of the Rancocas Creek from its mouth upstream to Bridge Street (Centerton Bridge); Mill Creek from its mouth at its confluence with the Rancocas Creek upstream to Interstate Route I-295 within Willingboro, Westampton and Burlington Township; South Branch Mill Creek from its	1

		mouth upstream to John F. Kennedy Parkway in Willingboro Township; a Tributary to Mill Creek from its mouth upstream to Levitt Parkway in Willingboro Township; a Tributary of Mill Creek from its mouth upstream to Woodlane Road in Westampton Township; a Tributary to Assiscunk Creek from the Springfield-Westampton Township Boundary upstream for 2,780 feet to the junction of a tributary in Westampton Township; the Mill Race and Mt. Holly By Pass Channel in Mt. Holly Township; Buttonwood Run from its mouth at its confluence with the Mill Race upstream to Branch Street in Mt. Holly Township; Budds Run from its mouth at the confluence with the North Branch Rancocas Creek upstream through Pemberton Borough; Mount Misery Creek from its mouth at the confluence with the North Branch Rancocas Creek to upstream from the Greenwood Road Bridge, Mirror Lake and Little Pine Lake, upstream to Trainor Place, Jefferson Lake, Cranberry Branch from the Country Lake Dam Spillway upstream to Lakehurst Road; Pole Bridge Branch from the Country Lake Dam Spillway upstream to the Lipton Station-Whitesbogs Road, a Tributary to Pole Bridge Branch from its mouth upstream to Lakehurst Road,	
Council adoption date	Stream	Limits	Type
		Tributary to Country Lake from its	

			mouth at the confluence with Pole Bridge Branch upstream to the Lipton Station-Whitebogs Road and Baffin Brook from its mouth at the confluence with Pole Bridge Branch upstream to the Lipton Station-Whitebogs Road, all in Pemberton Township, within the County of Burlington.	
19.	7-14-75	North Branch of Rancocas Creek	Mouth of Pemberton Browns Mills Road	2
20.	7-14-75	South Branch of Rancocas Creek	Mouth of Millpond Dam at Vincentown	2
21.	7-14-75	Southwest Branch Rancocas Creek	Mouth to State Highway 70	2

Council adoption date	Stream	Limits	Type
22. 11-19-79	Delaware River, Swan Creek, Swan Creek Tributary No. 1, Alexauken Creek, Brookville Creek, Wickecheoke Creek, Lockatcong Creek, Lockatcong Creek Tributary No. 1, Lockatcong Creek Tributary No. 2, Muddy Run, Little Nishisakawick Creek, Nishisakawick Creek, Harihokake Creek, Milford Creek, Quequacommisacong Creek, Milford Creek Tributary No. 1, Musconetcong River, Pohatcong Creek, Pohatcong Creek Tributary No. 1, Lopatcong Creek, Buckhorn Creek, Buckhorn Creek Tributary No. 1.	The Delaware River from the Hopewell Township-West Amwell Township Boundary line upstream to the Harmony Township-White Township Boundary lines; Swan Creek from the confluence with the Delaware River upstream through Lambertville City; Swan Creek Tributary No. 1 from the confluence with Swan Creek through Lambertville City; Alexauken Creek from the confluence with the Delaware River near the Lambertville City-Delaware Township Boundary upstream to Route 179 in West Amwell Township; Brookville Creek from the confluence with Delaware River at the Delaware Township-Stockton Borough Boundary upstream 3,752 feet to a location in Delaware Township; Wickecheoke Creek from the conflu-	1

Council adoption date	Stream	Limits	Type
		ence with the Delaware River at the Stockton Borough-Delaware Township Boundary upstream to a location in Delaware Township at Rosemonth-Ringoes Road; Lockatcong Creek within Kingwood Township from the Delaware Township-J Kingwood Township Boundary upstream to a location 140 feet upstream of the Oak Grove Road; the following three Lockatcong Creek Tributaries within Kingwood Township, Lockatcong Creek Tributary No. 1 from the mouth upstream to Kingwood Road; Muddy Run from the mouth upstream to Fitzer Road; Lockatcong Creek Tributary No. 2 from the mouth upstream to 140 feet north of Oak Grove Road; Little Nishisakawick Creek from the confluence with the Delaware River within Frenchtown Borough upstream to the Frenchtown Borough-Kingwood Township Boundary; Nishisakawick Creek from the confluence with the Delaware River upstream to the Frenchtown Borough easterly municipal boundary; Harihokake Creek within Alexandria Township from the confluence with the Delaware River in Milford Borough upstream to Spring Garden Road in Holland Township; Milford Creek from the confluence with the Delaware River upstream to Spring Garden Road in Holland Township and Quequacommisacong Creek from the	

			confluence with Milford Creek upstream to the Borough of Milford-Holland Township Boundary; Milford Creek Tributary No. 1 within Holland Township from the confluence with Milford Creek upstream to Spring Garden Road; Musconetcong River from the confluence with the Delaware River upstream to Conrail Bridge at the Pohatcong Township-Bloomsburg Boundary; Pohatcong Creek within Pohatcong Township from the confluence with the Delaware River upstream to municipal boundary upstream of the Conrail embankment; Pohatcong Creek Tributary No. 1 from the mouth upstream 1,686 feet in Pohatcong Township; Lopatcong Creek from the confluence with the Delaware River upstream through Phillipsburg Town and Lopatcong and Harmony Townships to a location 710 feet upstream of Hartman Drive; Buckhorn Creek within Harmony Township from the confluence with the Delaware River upstream to the Harmony-White Township Boundary, and Buckhorn Creek Tributary No. 1 from the confluence with Buckhorn Creek upstream 3,205 feet within Harmony Township, within the Counties of Hunterdon and Waren.
Council adoption date	Stream	Limits	Type
23. 6-4-80	Assunpink Creek	Approximately 2,100 feet downstream from Dam Site No. 20 upstream to the Old York Road, Bridegroom Run from its mouth to a point approximately	

				3,300 feet upstream from the Old trenton Road, Hancock Creek from its mouth to a point approximately 3,900 feet upstream, New Sharon Branch from its mouth to a point approximately 5,200 feet upstream from the Egglington Road and the North Tributary of New Sharon Branch from its mouth to a point approximately 3,200 feet upstream from the Egglington Road.
24.	8-25-78	Assunpink Creek	Plates A-1 and A-2	Mouth upstream to Whitehead Mill Pond Dam
25.	6-9-80	Pond Run	Plates P-1 to P-3	Mouth at the Junction with Assunpink Creek upstream to the site No. 8, flood control dam
26.	6-9-80	North Branch of Run		Mouth at the Junction with Pound Run upstream through the Whitehorse Mercerville Road within the City of Trenton, and the Townships of Hamilton and Lawrence in the County of Mercer.

Council adoption date	Stream	Limits	Type
27.	Pond Run		The flood hazard area of the Pond Run from its confluence with the Assunpink Creek to a point upstream from the Whitehorse-Hamilton Square Road and the North Branch of the Pond Run from its confluence with Pond Run upstream to the Whitehorse-Mercerville Road, all within the Township of Hamilton, Mercer County. The floodway and flood hazard area of the Pequest River from the boundary between the Town of Belvidere and the Township of White to the White

		township-Liberty Township municipal boundary, the Pequest River from 100 feet downstream from Route Pound46 in Independence Township upstream to its third crossing of Route Pound206 in Andover Township through the Townships of Independence, Liberty, Allamuchy, Green and Andover, Beaver Brook from its confluence with the Pequest River upstream to Route Pound80 through White and Hope Townships, Honey Run from its confluence with Beaver Brook upstream to the Swayze Mill Road (Route Pound610) in Hope Township and Kymers Brook from its confluence with the Pequest River upstream through Green and Andover Townships to Route Pound206 in Andover Borough, all in the Delaware River Basin.

Council adoption date	Stream	Limits	Type
28	Wreck Pond Brook, Hanabrand Brook, Shark river, Jumping Brook, Hog Swamp Brook, Popular Brook, Whale Pond Brook, Turtle Mill Brook, Little Silver Creek	The floodway and flood hazard area of the Wreck Pond Brook from Old Mill Pond Road to 4,320 feet upstream of Martins Road in Wall Township, Monmouth County; Hannabrand Brook from its confluence with Wreck Pond Brook upstream to the intersection of Route 34 and Allenwood Road in Wall Township, Monmouth County; Shark River from Route 18 upstream to Shafto Road in Wall, Neptune and Tinton Falls Townships, Monmouth County; Tributary E from its confluence with Shark River to 4,400 feet upstream	

		of Wyckoff Road in Wall Township, Monmouth County; Jumping Brook from its confluence with Shark River upstream to Jumping Brook Road in Neptune Township, Monmouth County; Hog Swamp Brook from Monmouth Road to 1,400 feet upstream of Route 18 in Ocean Township, Monmouth County; Popular Brook from its confluence with the Atlantic Ocean to 300 feet downstream of Roller Road in the Borough of Deal and Ocean Townships, Monmouth County; Whale Pond Brook from its confluence with the Atlantic Ocean to the upstream Borough of Long Branch Boundary in the Borough of Long Branch, Monmouth County; Turtle Mill Brook from its confluence with the Branchport Creek upstream to Monmouth Road in the Boroughs of West Long Branch and Oceanport, Monmouth County: Little Silver Creek from Seven Bridges Road to the upstream Borough of Little Silver Boundary in the Borough of Little Silver, Monmouth County.

Council adoption date	Stream	Limits	Type
29.	Tributaries to Delaware Bay in Cumberland, Salem and Gloucester counties	The floodway and flood hazard area of the Cohansey River from the downstream corporate limits upstream to Sunset Lake Dam, the Raceway Canal for its entire length in Bridgeton, from its spillway confluence with the Cohansey River to Sunset Lake Dam, Mill Creak/Indian Fields Branch from its confluence with the Cohansey River	

upstream through East Lake to the upstream corporate limit in Bridgeton, Jackson Run from its confluence with the Cohansey River upstream through East Lake to the upstream corporate limit in Bridgeton, Jackson Run from its confluence with East Lake upstream 7,600 feet to the upstream corporate limit in Bridgeton; Salem River from its confluence with the Delaware River upstream to the junction with Fenwick Creek (approximately 350 feet upstream of Route 46) and Fenwick Creek from its confluence with Salem River upstream to its junction with Keasbeys Creek in Salem, and Keasbeys Creek from its confluence with Fenwick Creek to 75 feet upstream of Grant Street in Salem; Alloways Creek from its confluence with the Delaware River upstream to Salem-Hancocks Bridge Road; Raccoon Creek from its confluence with the Delaware River to 100 feet upstream of Kings Highway in Woolwich, and Oldmans Creek from its confluence with the Delaware River to 800 feet upstream of Interstate highway Route 295 (northbound) in Logan: and Maurice River from its confluence with the Delaware Bay upstream to its junction with Buckshutem Creek. Maurice River from the downstream corporate limit of Millville upstream to Weymonth Road and Willow Grove Lake Dam in Vineland; Manantico Creek from Manantico Lake Dam upstream to its confluence with Cedar Branch; Scotland Run from approximately 2,000 feet downstream of Malaga Lake Dam to Washington Avenue in

Council adoption date	Stream	Limits	Type
		Franklin Township, Gloucester County; Cedar Branch from its confluence with Manantico Creek to Maple Avenue in Vineland; Blackwater Branch from its confluence with the Maurice River upstream to the Franklin-Vineland municipality boundary; Petticoat Stream from its confluence with the Maurice River upstream to Tenth Street, northwesterly of Hance Bridge Road; Piney Branch from its confluence with Blackwater Branch upstream 7,500 feet to North Vale Road in Vineland; Long Branch from its confluence with Blackwater Branch upstream 1,940 feet to the Vineland-Franklin municipality boundary; Still Run for its entire length within Franklin Township, from its downstream corporate limit upstream to approximately 190 feet upstream of Little Mill Road; Little Ease Run from its confluence with Still Run upstream to the Franklin-Clayton municipal boundary; White Marsh Run from its confluence with the Maurice River upstream to Reick Avenue in Millville; and the Manumuskin River for its entire reach within Vineland, from its downstream corporate limit in Vineland to a point 1,900 feet upstream of Daughty's Tavern Road.	

Council adoption date	Stream	Limits	Type
30.		Paulins Kill within Blairstown Township, Warren County and from West End Drive, Stillwater Township, Sussex County, upstream to its confluence with Moore's Brook in the Town of Newton; Dry Brook from its confluence with the Paulins Kill upstream through Branchville Borough; Culverts Creek from its confluence with Dry Brook upstream to the Culvers Lake Dam; Lafayette Township Tributary from its confluence with the Paulins Kill to 4,720 feet upstream; Sparta Junction Tributary from its confluence with the Paulins Kill upstream to Layton Lane in Sparta Township; and Moore's Brook from its confluence with the Paulins Kill upstream to 1,350 feet upstream from Lake Avenue in the Town of Newton.	
31.	Pohatcong Creek from the Township of Pohatcong-Township of Greenwich corporate limit upstream to the Jane Chapel Road Bridge, Merril Creek from the confluence with Pohatcong Creek upstream along both the left and right channels upstream to Township of Greenwich, Township of Lopatcong Municipal boundaries, Montana Brook from the junction with Pohatcong Creek upstream to 50 feet upstream of Rt. 57 Highway Bridge, Mill Brook from the confluence with Pohatcong	Spruce Run upstream from a location 1,000 feet upstream from a private driveway bridge in Bethlehem Township upstream to the Borough of Glen Gardner, Township of Lebanon Municipal boundary.	

		Creek upstream approximately 3,160 feet, Shabbecong Creek from the confluence with Pohatcong Creek upstream to 1,050 feet upstream of Flower Avenue Bridge.	
		Rocky Run from confluence with Spruce Run upstream to 1,250 feet upstream of County Road in Lebanon Township.	

Council adoption date	Stream	Limits	Type
		South Branch Raritan River from the Lebanon Township. High Bridge Borough corporate limit upstream to Budd Lake near the municipal building in Mount Olive Township, Electric Brook from the confluence with the South Branch Raritan River upstream to the spillway at Lake George Dam in Washington Township. Stony Brook from the confluence with the South Branch Raritan River upstream to Old Farmers Road in Washington Township, Drakes Brook and the Drakes Brook Diversion from the confluence with the South Branch Raritan River upstream to Mount Olive Township-Roxbury Township municipal boundary, Conlon Pond Brook from the confluence with Drakes Brook upstream to Mount Olive Township-Roxbury Township municipal boundary, Tributary to Budd Lake upstream to Route 46 Bridge in Mount Olive Township. Musconetcong River from the Townships of Pohatcong-Greenwich municipal	

			boundary to 2,440 feet upstream of the Conrail bridge between the Townships of Roxbury and Bryam, Tributary 'A' from the confluence with the Musconetcong River to 50 feet upstream from culvert in the Township of Franklin Sigler Brook from the confluence with Musconet-cong River upstream to 50 feet upstream of Bloomsburg Road in Franklin Township, Stephensburg Brook from confluence with Musconetcong River upstream to 250 feet upstream of dam in Washington Township, Hances Brook from the confluence with Musconetcong River upstream to Grant Avenue Highway Bridge, Tributary 'B' from the confluence with Musconetcong River upstream to Route 24 Highway Bridge, Trout Brook from the confluence with the Musconetcong River upstream to abandoned canal, Hackettstown Brook from the confluence with Musconetcong River upstream to private driveway, Lubbers Run from confluence
Council adoption date	Stream	Limits	Type
		with Musconetcong River upstream to 3,950 feet upstream of Stanhope-Sparta access road, Wills Brook from the confluence with Musconetcong River upstream to 7,000 feet upstream of Dirt Road off railroad.	

OFFICE OF ADMINISTRATIVE LAW NOTE: A map delineating the flood hazard area described in this notice can be inspected at:

Division of Water Resources
CN 029
Trenton, New Jersey 08625

OFFICE ADMINISTRATIVE LAW NOTE: The Floodway and Flood Hazard Area Delineation Map and corresponding flood profile plates which depict the redelineation for the Delaware River Basin (see N.J.A.C. 7:13-7.1(c)17), are available for review at:

Office of Administrative Law
CN 301
Quakerbridge Plaza, Building Number 9
Trenton, NJ 08625
or
Bureau of Flood Plain Management
1911 Princeton Avenue
Lawrenceville, New Jersey

(d) A list of delineated streams in the Passaic-Hackensack Basin and a list of delineated streams in the Raritan Basin follow:

1. 1-17-68	Stony Brook (Millstone River)	Mouth to Province Line Road The floodway and flood hazard area of approximately 1,650 feet of the Stony Brook (downstream) from 2,000 feet downstream of Linvale Road within the Township of East Amwell.	1
2. 6-26-72	Raritan River	Mouth to confluence with north and south branches Raritan River	1
i. 4-17-78	Plat R-8.		
3. 10-16-72	Greenbrook	Mouth to confluence with Blue Brook	1
i. 11-20-72	Plat G-1		
ii. 5-21-79	Green Brook Plate No. 1	Mouth to Blue Brook	1
4. 10-16-72	Neshanic River	Mouth to confluence with Third Neshanic River	1
5. 10-16-72	Third Neshanic	Mouth to Sergentsville-Flemington Road (Route 523)	1
6. 11-20-72	Beden Brook	Mouth to footbridge 300 feet downstream from Route 518	1
7. 11-20-72	Lawrence Brook	Mouth to Deans Mill Dam	1
8. 12-18-72	Stoney Brook	Province Line Road to 50 feet	1

	(Millstone River)	downstream of first bridge avove confluence with Peters Brook	
9. 1-22-73	South River	Mouth to confluence with Manalapan Brook	1
i. 3-22-76	Plate S-2		
10. 1-22-73	Manalapan Brook	Mouth to Smithsburg-Clarksburg Road (Route 524)	1
11. 3-19-73	Rockaway Creek	Mouth to Fairmont Road West. The floodway and flood hazardous area of the Rockaway Creek from approximately 3,000 feet upstream of Lamington Road to its junction with the South Branch Rockaway Creek as shown on Plate RC-3.	1
12. 3-19-73	South Branch Rockaway Creek	Mouth to private road opposite Bissel Road. The floodway and flood hazard area of the South Branch Roackaway Creek from its confluence with the Rockaway Creek upstream to approximately 1,200 feet upstream of the Cushetunk Lake Dam, as shown as Plate SBR-1.	
13. 3-19-73	Drakes Brook	Mouth to Carey Road	1
14. 4-23-73	Lamington River	Mouth to 1080 feet downstream of the Somerset-Morris County boundary line. From the Hunterdon-Somerset-Morris County line to 1350 feet downstream of Ironia Road	1
15. 5-21-73	Bound Brook	Mouth to Reading Railroad Bridge in Edison Township	1
16. 5-12-73	Cedar Brook	Mouth to Cedarbrook Avenue	1
17. 5-21-73	Stony Brook (Green Brook)	Mouth to confluence with east and west branches of Stony Brook	
18. 5-21-73	East Branch Stony Brook	Mouth to private road bridge at Station 1643 + 20	1
19. 6-18-73	Millstone River	Mouth to Sweetman Lane-Perrineville road in Millstone Township	1

20. 6-18-73 Rocky Brook Mouth to Penn-Central Railroad 1
Bridge in Hightstown Boro
21. 6-18-73 Matchaponix Brook Mouth at confluence with South River
to confluence with McGelliards Brook
and
i. Amended Plate P-1. Weamaconk Creek 1
4-17-78
22. 6-18-73 McGelliards Brook Mouth to Gordon's Corner Road 1
i. Amended Plate McG-1
4-21-75
23. 6-18-73 Weamaconk Creek Mouth to Monument Avenue 1
24. 6-18-73 Wemrock Brook Mouth to Route 33 1
25. 6-18-73 Tepehemus Brook Mouth to Robertsville Road 1
26. 6-18-73 South Branch Mouth to Robertsville Road 1
Tepenhemus Brook
27. 6-18-73 Milford Brook Mouth to Old Bridge Road 1
28. 6-18-73 Pine Brook Mouth to Route 9 1
i. Amended Plates P-2 and P-3
9-23-74
29. 6-18-73 Barclay Brook Mouth to Route 9 1
30. 9-17-73 South Branch Mouth to outlet of Budd Lake 1
Raritan River
31. 10-15-73 North Branch Mouth to Hackettstown 1
Raritan River Road (Route 24) 1

The flood hazard area of the North Branch Raritan River (downstream) from its confluence with Chambers Brook upstream to the Bedminster-Peapack Gladstone Township Boundary solely within the Townships of Branchburg and Bedminster and the Borough of Far Hills, all within the County of Somerset; and the Lamington River from its confluence with the North Branch Raritan River upstream 6,000 feet within the Townships of Bedminster and Branchburg, Somerset County.

32. 11-18-74 Harry's Brook Mouth to Snowden Lane 1

33.	11-18-74	Harry's Brook Branch No. 1	Mouth to Bertrand Drive	1
34.	11-18-74	Harry's Brook Branch No. 2	Mouth to intersection of Terhune Road and Harrison Street North	1
35.	11-18-74	Harry's Brook Branch No. 2-1	Mouth to Van Dyke Road	1
36.	11-18-74	Harry's Brook Branch No. 2-2	Mouth to Grove Avenue	1
37.	10-20-75	Holland Brook	Mouth to Route 523	1
38.	10-20-75	Holland Brook Tributary A	Mouth to private bridge 2,780 feet upstream	1
39.	10-18-76	Rahway River	Sperry Dam upstream to Kenilworth Boulevard in the Township of Cranford, Union County	1

The floodway and flood hazard area of the Rahway River from the downstream Woodbridge Township boundary to the upstream Springfield Township boundary in Woodbridge Township and the Townships of Clark, Cranford, Springfield, Kenilworth, Union and the Cities of Rahway and Linden all in Union County; South Branch Rahway River from its confluence with the Rahway River to the upstream Woodbridge Township boundary in the City of Rahway, Union County and Woodbridge Township, Middlesex County; Orchard Creek from its confluence with the South Branch Rahway River to the upstream Woodbridge Township boundary in the City of Rahway, Union County; Parkway Branch from its confluence with the South Branch Raritan River upstream to the Garden State Parkway in Woodbridge Township, Middlesex County; Robinson's Branch from its

confluence with the Rahway River to the upstream boundary of Clark Township in the Townships of Clark, Scotch Plains and the City of Rahway all in Union County; Pumpkin Patch Brook from its confluence with Robinson's Branch upstream to Inwood Ave. In Clark Township and Woodbridge Township, Middlesex County; Ocrhard St. Branch from its confluence with the Rahway River upstream to the Cranford Township-Garwood Borough municipal boundary in Cranford Township, Union County; Gallows Hill Road Branch from its confluence with the Rahway River to the upstream limits of the Brookside Road Retention Basin in Cranford Township and the Town of Westfield all in Union County; College Branch from its confluence with the Rahway River upstream to Springfield Ave. in Cranford Township, Union County; Drainage Ditch, adjacent to Lenape Park dike, from its confluence with the Rahway River to its confluence with Black Brook in Springfield Township, Union County; Branch 10-30 from its confluence with the Drainage Ditch

(adjacent to Lenape Park dike) to 50 ft. upstream of Wiltshire Drive in Springfield Township, Union County; Branch 10-30-1 from its confluence with the Drainage Ditch (adjacent to Lenape Park dike, Springfield Township, Union County) upstream to 4th St. in Kenilworth Borough, Union County; Black Brook from its conflu-

		ence with the Rahway River to 720 feet upstream of Springfield Rd. in Springfield Township and Kenilworth Borough, Union County; Van Winkles Brook from its confluence with the Rahway River to the upstream boundary of Springfield Township in Springfield Township, Union County; Bryant Brook Branch from its confluence with Bryant Brook upstream to Route 78 in Springfield Township, Union County; Woodbridge River from its confluence with the Arthur Kill upstream to Omar Ave. in Woodbridge Township, Middlesex County; Spa Spring from the confluence of the Woodbridge River upstream to Convert Blvd. in Woodbridge Township, Middlesex County; Heards Brook from its confluence with the Woodbridge River upstream to Route 9 in Woodbridge Township, Middlesex County.	
2-23-81	Third River	The Third River from its mouth at Mouth to confluence with the Passaic River to upstream from Grove Street in the City of Clifton: St. Paul's Brook from its mouth at at the confluence with the Third River upstream 3700 feet to an unnamed dam; Second River from its mouth at the confluence with the Passaic River upstream to Hillside Avenue in Glen Ridge Borough and from the downstream Montclair Town Boundary to upstream Park Street; Second River Tributary from its mouth at the confluence with the Second River to the Orange-East Orange City	1

			Boundary just upstream from Springfield Avenue; and Nishuane Brook from its mouth at the confluence with Second River Tributary to upstream from Brooklawn Road in the Town of Montclair, all in the Counties of Essex and Passaic and within the Passaic River Basin.	
40.	4-16-79	Mountain	Mouth upstream to a private roadway bridge in the vicinity of Great Road and its Branch No. 2 from its mouth to Red Hill.	1
41.	4-16-79	Passaic River Dam	Mouth to Dundee Dam, McDonald's Brook and Weasel Brook from the mouth of each through the municipality of Passaic and within the municipalities of Beileville, Clifton, East Newark, East Rutherford, Garfield, Harrison, Lyndhurst, Kearny, North Arlington, Passaic, Rutherford and Wallington.	1
42.	5-21-79	Raritan & Rahway	Bonhamton Brook tributary to Mill Brook from the downstream corporate boundary upstream to the Lehigh Valley Railroad, Dismal Brook from the downstream corporate boundary upstream to Norcross Avenue extended, within the Borough of Metuchen, Middlesex County; Raritan River Tributary 14-14-2-2 from the downstream corporate boundary to upstream from Grant Avenue, Tributary 14-14-2-2-1 from its confluence with Tributary 14-14-2-2-2 to upstream from Tompkins Avenue, Raritan River Tributary 14-14-2-3 from its confluence with Bound Brook upstream to New Brunswick Avenue Bound Brook	1

from the downstream corporate boundary to the upstream corporate boundary, and Cedar Brook from its confluence with Bound Brook to the upstream corporate limit, within the Borough of South Plainfield, Middlesex County; Stony Brook from the downstream corporate boundary upstream to its confluence with the East and West Branches Stony Brook East Branch from its confluence upstream to a private road, Stony Brook West Branch from its confluence to a driveway upstream from Carrar Drive, and Green Brook from Raymond Avenue upstream to Beechwook Lane extended, within the Borough of Watchung, Somerset County; Nomahegan Brook from the downstream corporate boundary upstream to the head of Echo Lake, Tributary to Rahway River from the downstream corporate limit to a detention reservoir located upstream from Gallows Hill Road, Robinson's Branch No. 15 from Lamberts Mill Road upstream to Shackamaxon Drive, Robinson's Branch No. 15-1 from its confluence with Branch No. 15 upstream to Rahway Avenue, and Robinson's Branch No. 15-2 from its confluence with Branch No. 15 to upstream from Tice Place, within the Town of Westfield, Union County. The floodway and flood hazard area of Green Brook from the Reading Rail Road at its mouth upstream to Rock Avenue, and Bound

Brook from its mouth upstream to approximately 450 feet downstream of

		the Lehigh Valley Railroad bridge.
		The floodway and flood hazard area of a reach of Green Brook bordering the Township of Berkeley Heights and the Borough of Watchung from 950 feet upstream of Oak Way extending 2135 feet upstream, approximately 750 feet downstream of Bonnie Burn Road.
	River Basin	
	Bonhamton Brook	
	Dismal Brook	
	Raritan River	
	Tributary	
	14-14-2-2-1	
	14-14-2-2	
	14-14-2-3	
	Bound Brook	
	Cedar Brook	
	Stony Brook East Branch	
	Stony Brook West Branch	
	Green Brook	
	Nomahegan Brook	
	Tributary to Rahway River	
	Robinson's Branch No. 15	
	No. 15-1, & No. 15-2	
43.5-21-79	Elizabeth River, Morses Creek Tributary 9-1, and Tributary 9-1-7-1.	The flood hazard area of the Robinsons Branch No. 15 from Lamberts Mill Road to approximately 1,200 feet upstream and the flood hazard area of the Robinsons Branch No. 15-1 from the mouth to approximately 375 feet upstream. The

		floodway and flood hazard area of the Green Brook from Jefferson Avenue to the upstream Plainfield City Boundary at Terrill Road within the Boroughs of North Plainfield and Watchung, Somerset County and the City of Plainfield, Union County; Stony Brook from its confluence with Green Brook upstream to the North Plainfield-Watchung municipal boundary, within North Plainfield Borough and the Raritan River from downstream to upstream municipal boundary of Somerville Borough, within the Borough of Somerville, Somerset County; and by adding to it the floodway and flood hazard area of Cedar Brook from the downstream Plainfield City Boundary upstream to Steele Avenue, within the City of Plainfield, Union County; Peters Brook from its confluence with the Raritan River to the upstream Somerville Borough municipal boundary, Ross Brook from its confluence with Peters Brook upstream to Routes 202-206, all within the Borough of Somerville, Somerset County.	
		Elizabeth River from municipal boundary of Hillside upstream to Valley Street, in the Tow of Irvington and Newark; and Morses Creek and Tributaries from the Central Railroad of New Jerse upstream within the Borough of Roselle Park.	1
44. 6-25-79	Passaic River, Rockaway River, Jackson and	The Passaic River within the Corporate limits of Montville Township and West Caldwell Borough,	1

	McKeel's Brooks, Beaver Brook, Hatfield Creek, Crooked Brook and its Tributary, Pine Brook, Green Brook and Kane Brook.	the Rockaway River within the corporate limits of The Town of Dover and the Township of Montville; Jackson and McKeel's Brooks from their confluence with the Rockaway River upstream to the municipal boundary within the Town of Dover; Beaver Brook from the downstream municipal boundary upstream to Waughaw Road, Hatfield Creek from its confluence with the Rockaway River upstream to above Brittany Road, Crooked Brook from its confluence with the Rockaway River upstream to the Lake Valhalla Dam, Crooked Brook Tributary from its confluence with Crook Brook upstream to the municipal boundary, and Stony Brook from the downstream to upstream municipal boundaries, all within the Township of Montville; Pine Brook from the downstream to upstream municipal boundaries, Green Brook from the downstream municipal boundary upstream to Central Avenue and Kane Brook from its confluence with Green Brook upstream to Central Avenue, all within West Caldwell Borough; in the Counties of Essex and Morris.	
45. 8-20-79	Raritan River, South River, Manalapan and Matchaponix Brooks, Lawrence Brook, Cedar Brook and its tributary, Tennent Brook, Saw Mill	Raritan River from its mouth upstream to the confluence of Mile Run, South River from its confluence with the Raritan River upstream to the confluence of Manalapan and Matchaponix Brooks and upstream along these streams through Spotswood Borough and Lawrence Brook from its confluence with the Raritan	1

	Brook, Bog Brook, Beaverdam Brook, Ireland Brook, Oakleys Brook, Mae Brook, Sucker Brook and its tributary, Mile Run and its tributary, Six Mile Run and Crossway Creek.	River upstream to the confluence of Oakleys Brook and to delineate the floodway and flood hazard area of Cedar Brook and its tributary from the mouth of each upstream through Spotswood Borough, Tennent Brook from its mouth through Sayreville Borough, Saw Mill Brook, Bog Brook, Beaverdam Brook and Ireland Brook each from its mouth upstream within East Brunswick Township, Oakleys Brook, Mae Brook, Sucker Brook and its tributary each from its mouth upstream within North Brunswick Township, Mile Run from its mouth upstream to Georges Road, and its Tributary from its mouth upstream through the City of New Brunswick, and Six Mile Run from the Somerset-Middlesex County Boundary (Route 27) upstream to Jersey Avenue, and Crossway Creek from Ernston Road to upstream from Frank Avenue. The floodway and flood hazard area of the Raritan River from Cash Island approximately 14,000 feet downstream to approximately 3,700 feet downstream of the New Jersey Turnpike.	
46. 5-21-79	Elizabeth River, Morses Creek Tributary 9-1, and Tributary 9-1-7-1.	Elizabeth River from municipal boundary of Hillside upstream to Valley Street, in the Town of Irvington and Newark; and Morses Creek and Tributaries from the Central Railroad of New Jersey upstream within the Borough of Roselle Park.	1
47. 7-30-79	Hackensack River, Musquapsink Brook,	Hackensack River from Oradell Reservoir Dam upstream to the New	

Haunsmans Ditch, Kipps Brook, Steinals Ditch, Charlies Creek, Dorotockeys Run, Tappan Run, Blanch Brook, Fairview Brook, Westdale Brook, Pine Brook, Township Brook, Tandy Brook, Bear Brook, Mill Brook, Echo Glen Reservoir Brook, Laurel Brook, Holdrum Brook, Hillsdale Brook, Cherry Brook, Muddy Creek Rivervale Brook, Fieldstone Brook and Stateline Brook.

York-New Jersey boundary; Pascack Brook from its mouth upstream to the New Yor-New Jersey boundary; Musquapsink Brook from its confluence with Pascack Brook upstream to the Storm Pond dam; Haunsmans Ditch from its mouth upstream to the vicinity of Eagle Drive in Emerson Borough; Kipps Brook from its mouth upstream to the vicinity of Seneca Terrace, Steinals Ditch from its mouth upstream to the municipal boundary, Charlies Creek from the downstream municipal boundary upstream to Delaware Avenue, all in Haworth Borough; Dorotockeys Run from its mouth upstream to the municipal boundary, Tappan Run from its confluence with Dorotockeys Run upstream for 1,400 feet, Blanch Brook from its confluence with the Hackensack River upstream to Blanch Avenue, all in Harrington Park Borough; Fairview Brook from its confluence with Pascack Brook upstream to Fairview Avenue, Westdale Brook from its confluence with Pascack Brook upstream for 2,350 feet, in Westwood Borough; Pine Brook from its confluence with Musquapsink Brook upstream to Pine Lake Dam, in Washington Township; Township Brook from its confluence with Pascack Brook upstream to the municipal boundary, Tandy Brook from its confluence with Pascack Brook upstream to Pascack Road, in Hillsdale Township, Bear Brook from its confluence with Pascack Brook upstream to the Garden State Parkway, Mill Brook from its confluence with Pascack Brook upstream to Summit Avenue, Echo Glen

Brook from its confluence with Mill Brook to upstream from Akers Road, Reservoir Brook from its mouth upstream to Woodcliff Avenue, Laurel Brook from its confluence with Mill Brook upstream for 3,030 feet. Holdrum Brook from its confluence with the Hackensack River upstream to the Montvale municipal boundary, Hillsdale Brook

from its confluence with Holdrum Brook upstream to the Montvale municipal boundary, Cherry Brook from its confluence with the Hackensack River upstream to the New York-New Jersey boundary, Muddy Creek from its confluence with Pascack Brook upstream to the New York-New Jersey boundary, Riverdale Brook from its confluence with the Hackensack River upstream for 3,260 feet, Fieldstone Brook from its confluence with Pascack Brook upstream to Woodland Avenue, and Stateline Brook from its confluence with Pascack Brook upstream to the New York-New Jersey boundary within the Boroughs of Emerson, Harrington Park, Haworth, Hillsdale, Park Ridge, Westwood and Woodcliff Lake and the Townships of Montvale. River Vale and Washington, all within the County of Bergen. The flood hazard area of the Hackensack River from the Old New Bridge Road upstream to the Oradell-Emerson Borough Boundary in the Boroughs of Haworth. New Milford, Oradell and River Edge; Hackensack River Bypass from its

		downstream to upstream confluences with the Hackensack River in New Milford and Oradell Boroughs; Hirschfeld Brook from its confluence with the Hackensack River Bypass upstream to the Teaneck Township Boundary in the Boroughs of Dumont, Bergenfield and New Milford; and Hirschfeld Brook upstream to the Ruccereto Avenue Bridge in the Boroughs of Bergenfield and Dumont, all in the County of Bergen.
2-23-81	Tenakill Brook	The Tenakill Brook from its mouth at Oradell Reservoir upstream to Norman Place in Tenafly Borough; Demarest Brook from its mouth at the confluence with Tenakill Brook upstream to County Road in Demarest Borough; Cresskill Brook from its mouth at the confluence with Tenakill Brook upstream to County Road in Demarest Borough; Norwood Brook from its mouth at Oradell Reservoir upstream to Broadway; Dwars Kill from its mouth at Oradell Reservoir upstream to Piermont Road; Tappan Run from the Harrington Park boundary with Norwood upstream to the West Shore Railroad; Sparkill Brook from the New York-New Jersey boundary upstream to Piermont Road and Sparkill Creek from the New York-New Jersey boundary in Northvale Borough within the Boroughs of Closter, Cresskill, Demarest, Northvale, Norwood, Rockleigh, and Tenafly, all in the County of Bergen. The floodway and flood hazard areas of Mill Brook

from approximately 600 feet upstream of Paragon Drive to approximately 1,350 feet upstream of Paragon Drive. Amended for Bear Brook, from Brae Boulevard to Audobon Road within Park Ridge Borough.

48. 11-19-79 Rockaway River, Passaic River, Pine Brook, North Branch Foulertons Brook, Canoe Brook, Foulertons Brook, Passaic River, Primrose Brook, Great Brook, Silver Brook, Tributary of Great Brook Whippany River, Watnong Brook Jaquis Brook.

The Rockaway River within the Town of Boonton, Morris County: the Passaic River within the Township of Chatham, Morris County: Pine Brook within the Borough of Essex Fells, Essex County: the North Branch Foulertons Brook from its mouth upstream to Livingston Avenue, Canoe Brook, Foulertons Brook and the Passaic River all within the Borough of Roseland, Essex County: the Passaic River from Madisonville Road upstream within the Township of Herding: Primrose Brook from Lee Hill Road to 0.3 miles upstream from interstate Route I-287 within Harding Township: Great Brook from Woodland Avenue upstream to James Street within the Townships of Harding and Morris and the Town of Morristown, Silver Brook from its confluence with Great Brook upstream to Interstate Route I-287 and a Tributary of Great Brook from its mouth upstream to James Street within the Township of Harding, all within the County of Morris, the Whippany River from the downstream municipal boundary of Morris Township to upstream of Sussex Avenue, through the Township of Morris and Town of Morristown, Morris County: Watnong Brook from

		its confluence with the Whippany River upstream through the Township of Morris and Borough of Morris Plains and Jacquis Brook from its confluence with Watnong Brook through the Borough of Morris Plains: all within the County of Morris. The flood hazard area of the Great Brook from Interstate Route I-287 upstream to James Street in the Town of Morristown, Morris County. The flood hazard area of Foulerton Brook from a location 500 feet downstream of Eisenshower Parkway upstream to Eisenshower Parkway in the Borough of Roseland, Essex County.
49.	Third River	The floodway and flood hazard area limits for the portion of the reach of the Third River within the City of Clifton between the Waldrich Bleachery Dam and the second Route 3 Highway Bridge. (River Station 25 + 75 to Station 60 + 60.) Nomahegan Brook from the upstream limit of Echo Lake: approximately 600 ft. downstream of Mountain Avenue, upstream to Lawrence Avenue, within Mountainside Borough and West Brook and St. Georges Avenue upstream to the downstream face of the Conrail Bridge, approximately 100 ft. upstream of 1st Street within Roselle Borough and Blue Brook from its confluence with Green Brook near Diamond Hill Road upstream to the Scotch Plains Township--Mountainside Borough municipal boundaries, approximately

365 ft. upstream of a foot bridge crossing and along the Scotch Plains Township and Berkeley Heights Township municipal boundaries and Winding Brook from its confluence with Robinson's Branch upstream to the downstream face of Elizabeth Avenue within Scotch Plains Township and Branch 22 from its confluence with Robinson's Branch upstream to the Scotch Plains Township--City of Plainfield municipal boundaries, approximately 1550 ft. upstream of the Sleepy Hollow Lane Bridge and revising the floodway and flood hazard area of Robinson's Branch from its confluence with the Middlesex Reservoir upstream to the Middlesex County-Union County boundary, approximately 2800 ft. upstream of the confluence of Branch 22 along Robinson's Branch within Scotch Plains and Clark Townships.

50. The floodway and flood hazard area of the North Branch Foulerton's Brook for approximately 750 feet from Eagle Rock Avenue Bridge upstream to Becker Farm Road Bridge.

51. Drakes Brook from its downstream Corporate limit in Roxbury to 15230 ft. U.S.: Holland Brook from 4735 feet downstream of Centerville Road in Readington upstream to Route 19: Lamington River from 6000 feet upstream of its confluence with North Branch Raritan River upstream to Linvale Road: Stony Brook from Route 518 in East Amwell Township upstream to Linvale Road: Millstone

River from 2650 feet downstream of Old Route 33 in Millstone: upstream to 4754 feet upstream of Roberts Road: South Branch Rockaway Creek from 1200 feet upstream of Cushetunk Lake Dam, upstream to Kaok Avenue: Neshanic River from 2575 feet downstream of Rainbow Hill Road upstream to Old York Road: Rockaway Creek from its junction with South Branch Rockaway Creek upstream to Fairmount Road west: North Branch Raritan River from its downstream Corporate limit in Mendham, upstream to Ironia Road: Rockaway Creek from its confluence with Lamington River upstream to 3000 feet upstream of Lamington Road: Rocky Brook from its down-streat corporate limit in Mill-stone, upstream 5200 feet: South Branch Raritan River from 4000 feet downstream of Higginsville Road in Hillsboro/Readington to New Dartmills Road in Readington Raritan and again from 7150 feet downstream of Gray Rock Road to 1170 feet upstream of Cokesbury Road in Clinton Township: and to add to it the floodway and flood hazard area of Back Brook from its confluence with Neshanic River upstream to Old York Road in East Amwell: Beaver Brook in Clinton township from 3000 feet downstream of Route 31, upstream to Central Railroad of New Jersey: Burnett Brook from its confluence to North Branch Raritan River upstream to South Road: Capoolong Creek in Franklin Township from 3600 feet downstream of Quakertown Road upstream 6350 feet: Chambers Brook in

Bedminister/Bridgewater from its confluence with North Branch Raritan River upstream through a portion of Echo Lake: Chambers Brook in Readington from 700 feet downstream of County Line Road upstream 15260 feet: Claucas Brook from its confluence with North Branch Raritan River to Lamington Road in Bedminister: Dawsons from its confluence with Burnett Brook upstream 2177 feet in Mendham: Gladstone Brook in Chester Township from St. Bernards Road upstream 4845 feet; Harmony Brook from its confluence with Whippany River upstream to Woodland Road; Herzog Brook in Bedminister from its confluence with Lamington River upstream to Pottersville Road; Hoopstick Brook from its mouth upstream to Lamington Road in Bedminster; Indian Brook from its confluence with Burnett Brook upstream 5840 feet; Middle Brook from its confluence with North Branch Raritan River upstream to Spook Hollow Road; Mulhockaway Creek in Union from Spruce Run upstream to 430 feet upstream of Gravel Hill road; Musconetcong River from mouth at Lake Musconetcong upstream 4380 feet; Passaic River in Mendham from its downstream corporate limit to 1300 feet upstream of Tempewick road; Peapack Brook in Bedminister from its confluence with North Branch Raritan River, upstream 3230 feet; Peapack Brook in Clinton Township from its downstream Corporate limit upstream to Farm

Road; Pleasant Run in Readington from 450 feet downstream of Old York Road to upstream of Route 202; Rockaway River in Roxbury from its downstream corporate limit to its upstream Corporate limit; South Fork Third Neshanic River in East Amwell from Creek Road downstream to Creek Road upstream; Spruce Run from Spruce Run Reservoir up stream 6340 feet; Succasunna Brook in Roxbury from the downstream Corporate limit upstream to Eyland Road: portion of the Toms River in Mill-

stone Township from Monmouth Road upstream 5600 feet; Whippany River in Mendham from the downstream Corporate limit to its confluence with Harmony Brook; Willoughby Brook from Spruce Run Reservoir upstream to Buffalo Hollow Road; Various Unnamed Tributaries to South Branch Raritan River including Tributary 'A' in Franklin and Union Townships from Lehigh Valley Railroad to Conrail Bridge. Tributary 'A' in Readington from confluence to Barley Sheaf Road; various unnamed tributaries to Mulhockaway Creek in Union Township; Tributary 'B' from its confluence upstream 5380 feet; Tributary 'C' from its confluence upstream 5155 feet. Tributary 'D' from its confluence upstream 5760 feet. Tributary 'F' from its confluence upstream 1240 feet and Tributary 'E'from Tributary 'D' up-stream 4200 feet; Two Tributaries to South Branch Rockaway Creek in

Lebanon Borough; Tributary 'A' from its confluence to Route 22 and Tributary 'B' from its confluence with Tributary 'A' to Route 78; a tributary to Neshanic River in East Amwell labelled Tributary 'A' from its confluence to Manners Road; a Tributary to Lamington River in Tewksbury labelled Tributary 'A' from its confluence to 5000 feet upstream of Homestead Road; and a tributary to Rockaway Creek labelled Tributary 'B' from its confluence upstream 2810 feet.

52. Passaic River from the junction with the Whippany River upstream to the Somerset Morris County border. Spring Garden Brook from the confluence with the Passaic River upstream to 300 feet upstream of Cross Street Bridge, Canoe Brook from the confluence with the Passaic River upstream to a location 150 feet downstream of Rt. 280, Canoe Brook Downstream Tributary Number 1 from the confluence with Canoe Brook upstream to 1000 feet upstream of White Oak Ridge Road. Bear Brook from the confluence with Canoe Brook Upstream to downstream of Bear Brook dam. Slough Brook from 100 feet downstream of Parsonage Hill Road upstream to 150 feet upstream of Irving Avenue, Salt Brook from the confluence with the Passaic River upstream to the Conrail Bridge, West Branch Salt Brook from the confluence with Salt Brook upstream to 300 feet upstream of Morris

Avenue, Cory's Brook from the confluence with the Passiac River upstream to 100 feet upstream of Private Road Bridge, Dead River from the confluence with the Passaic River upstream of Annin Road, Harrison Brook from the confluence with Dear River upstream to 100 feet upstream of South Alward Avenue, Harrison Brook Branch 2 from the confluence with Harrison Brook upstream to 900 feet upstream of Private Road Dam, Indian Grave Brook from the confluence with the Passaic River upstream to 1700 feet upstream of Washington Corner Road and Tributary K from the confluence with Indian Grave Brook upstream to 50 feet upstream of Driveway Bridge. (Amends (d)48 for Roseland, Harding and Chatham Townships, and (e)1 for West Caldwell Township.)

53. Van Horn Brook and its Tributary, Cherry Run, Duck Pond Run, Devils Brook, Bee Brook, Shallow Brook, Little Bear Brook, Big Bear Brook, Canoe Brook, Bear Creek, Cranbury Brook, Cedar Brook, Rocky Brook, Bentley's Brook, Clear Brook, Tributary to Cranbury Brook, Sawmill Brook and its Tributary, Tributary to Manalapan Brook, Wigwan Brook, Tributary to Weamaconk Creek, Heathcote Brook and its Tributary, Carters Brook and its Tributary, Heathcote Brook Branch, Switzgable Brook, Six Mile Run Branch and its Tributary, Ten Mile Run and its Tributary 1, Great Ditch, Tributary

to Lawrence Brook, Cow Yard Brook, Tributary to Oakey's Brook.

Van Horn Brook from the Princeton Township corporate boundary to approximately 225 feet upstream of Arreton Road; Tributary to Van Horn Brook from the Princeton Township corporate limit to Herrontown Road; Cherry Run from the Princeton Township corporate limit to Cherry Hill Road; Duck Pond Run from its confluence upstream to Penn Lyle Road in West Windsor; Devils Brook from its confluence upstream to Hay Press Road in South Brunswick; Bee Brook from its confluence upstream to approximately 3,000 feet upstream of Scudders Mill By-Pass Road in Plainsboro; Shallow Brook from its confluence upstream to the New Jersey Turnpike in Monroe Township; Little Bear Brook from its confluence upstream to Meadow Road in Windsor; Big Bear Brook from its confluence upstream to Route 33 in East Windsor; Canoe Brook from its confluence upstream to Penn Lyle Road in West Windsor; Bear Creek from its confluence to the West Windsor-Washington Township corporate limit and the reach within East Windsor; Cranbury Brook from its confluence upstream through Plainsboro and Cranbury to Longstreet Road in Monroe; Cedar Brook from its confluence upstream through Cranbury Township to Applegate Road; Tributary to Millstone River from its confluence upstream

approximately 3,447 feet; Rocky Brook for the reaches within East Windsor; Bentley's Brook from its confluence to approximately 2,600 feet upstream of Route 33; Clear Brook from its confluence to approximately 565 feet upstream of Union Valley Half Acre Road; Tributary to Cranbury Brook from its confluence to Union Valley Gravel Hill Road; Sawmill Brook from its confluence upstream 4,453 feet within Helmetta Borough; Tributary to Sawmill Brook from its confluence upstream 640 feet within Helmetta Borough; Tributary to Manalapan Brook from its confluence to Mott Avenue within Monroe Township; Wigwam Brook from its confluence upstream 7,029 feet; Tributary to Wamaconk Creek from its confluence to Farm Lane within Englishtown; Heathcote Brook from its confluence to 2,959 feet upstream of New Road; Tributary to Heathcote Brook for the reach within South Brunswick, from its confluence upstream to Route 27; Carters Brook for the reach within South Brunswick, from its confluence upstream to Old Road; Tributary to Carters Brook for the reach within South Brunswick, from its confluence upstream to Route 27; Heathcote Brook Branch from its confluence upstream to Route 1; Switzgable Brook from its confluence upstream to New Road; Six Mile Run Branch from Lincoln Highway upstream to approximately 1,200 feet upstream of

		Stillwell Road; Tributary to Six Mile Run from its confluence upstream to approximately 2,000 feet upstream of Sand Hill Road; Ten Mile Run from Lincoln Highway upstream to approximately 2,000 feet upstream of New Road; Tributary 1 to Ten Mile Run from its confluence upstream to approximately 600 feet upstream of Rumson Road; Great Ditch from its confluence upstream approximately 1,300 feet; Tributary to Lawrence Brooke from its confluence upstream 2,915 feet: Cow Yard Brook from its confluence upstream to approximately 516 feet upstream of Deans Lane; and Tributary to Oakey's Brook from its confluence upstream to approximately 970 feet upstream of Henderson Road.	
54.	Rock Brook, Pike Run and Cruser Brook.	Rock Brook from its mouth upstream to Camp Meeting Road: Pike Run from its mouth upstream to Township Line Road; Cruser Brook from its mouth upstream to Belle Mead-Blawenburg Road.	1
55.	Passaic River, Rockaway River and Tributaries, Whippany River and Tributaries, Pequannock River, Lake Hopatcong and Tributaries, Hohokus Brook, Pond Run, and Tributaries of the Rahway River	Passaic River, from the Township of Fairfield-West Caldwell municipal boundary upstream to the West Caldwell-Roseland boundary: Rockaway River, from its confluence with the Passaic River upstream to Polland Mountain Road bridge in Jefferson Township; Hatfield Creek, from its confluence with the Rockaway River upstream to Gathering Road; Crooked Brook, from its confluence with the Rockaway River upstream to Church Street; Den Brook from its confluence with the Rockaway River	

upstream to 1,270 feet upstream of Shongun Road bridge; Beaver Brook, from its confluence with the Rockaway River upstream to Beach Glen Road: Fox Brook, from its confluence with the Rockaway River upstream to 960 feet upstream of Fox Lake Dam: Rockaway River Tributary No. 1, from the confluence with Rockaway River upstream 5,800 feet; Green Pond Brook, from the confluence with the Rockaway River upstream to the Rt. 80 ramp; Rockaway River Tributary No. 5, from its confluence with Rockaway River upstream to footbridge across Cozy Lake: Rockaway River Tributary 5-1, from its confluence with Rockaway River Tributary No. 5 upstream 240 feet: Rockaway River Tributary No. 6, from its confluence with Rockaway River upstream to Milton Road highway bridge; Rockaway River Tributary No. 7, from its confluence with Rockaway River upstream to Welden Road highway bridge; Whippany River, from its confluence with Rockaway River upstream to Morris Township municipal boundary; Troy Brook, from its confluence with the Whippany River upstream to Cherry Hill Road; West Brook, from its confluence with the Troy Brook upstream to Lake Structure; Eastmans Brook, from the confluence with Troy Brook upstream to upstream end of Lake Parsippany: Black Brook, from its confluence with the Whippany River to upstream corporate limit of Hanover Township; Pinch Brook, from its confluence with Black

Brook to the upstream corporate limit of East Hanover Township; Malapardis Brook, from its confluence with the Whippany River upstream to South Jefferson Road; Watnong Brook, from Rt. 10 Highway bridge upstream 8,330 feet; Pequannock River, from the downstream Jefferson municipal boundary upstream to the Oak Ridge Reservoir Dam; Lake Hopatcong; Weldon Brook Tributary, Weldon Brook from the confluence with lake Hopatcong upstream to East Shawnee Trail; Lake Hopatcong Tributary No. 2, from the confluence with Lake Hopatcong upstream to Lorretta Long Drive highway bridge; Hohokus Brook, upstream from the Wyckoff-Franklin Lakes municipal boundary upstream to 400 feet upstream of De Yoe Pond; Pond Brook, upstream from Oakland-Franklin Lakes municipal boundary upstream to Franklin Lakes Road; Wigman Brook, from the downstream Orange boundary upstream to Watchung Street; East Branch Rahway River, from the downstream Orange boundary to upstream municipal boundary; East Fork of the East Branch Rahway River, from the junction with East Branch Rahway River upstream to Joyce Street.

AGENCY NOTE: All relevent information and documents are available for inspection during normal working hours at the Office of the Bureau of Flood Plain Management, 1911 Princeton Avenue, Trenton, New Jersey and at the Office of Administrative Law, Quakerbridge Plaza, Building 9, Trenton, New Jersey. Approximately 70 maps are on file for these delineations.

(e) A list of delineated streams in the Passaic River follows:

Council Adoption Date	Stream	Limits	Type
1.10-18-79	Passaic River, Henderson Brook, Diamond Brook, Goffle Brook, Deep Brook, Molly Ann Brook, Tributaries Nos. 3, 4, 5 and 6, Buttermilk Falls and Squaw Brook. Slippery Rock Brook, Pearl Brook and Dowling Brook. Peckman River, Great Notch Brook, Taylor Brook and a small Tributary of Peckman River, Wabash Brook, Weasel Brook, Plog Brook, Weasel Brook Branch No. 3-5-2 and a small Tributary of Weasel Brook	Passic River from Dundee Dam upstream to Beatties Dam; Henderson Brook from its mouth at the confluence with the Passaic River Upstream up to the ErieLackawanna Railroad within Fair Lawn Borough; Diamond Brook from its mouth at the confluence with the Passaic River upstream through Fair Lawn and Glen Rock Boroughs; Goffle Brook from its mouth at the confluence of the Passaic River upstream through Hawthorne Borough and Deep Brook from its mouth at the confluence with Goffle Brook through Hawthorne Borough; Molly Ann Brook from its mouth at the confluence with the Passaic River upstream through the City of Paterson, and Boroughs of Haledon and North Haledon; Tributaries Nos. 3, 4, 5 and 6, Buttermilk Fails and Squaw Brook each from their mouths at the confluence with Molly Ann Brook upstream through the Borough of North Haledon; Slippery Rock Brook from its mouth at the confluence with the Passaic River upstream through the City of Paterson and Borough of West Patterson; Pearl Brook and Dowling Brook each from their mouths at the confluence with the Passaic River upstream within	I

Council Adoption Date	Stream	Limits	Type
		the Borough of West Paterson; Peckman River from its mouth at the confluence with the Passaic River upstream through the Borough of West Paterson. Townships of Little Falls and Cedar Grove, and Borough of Verona; Great Notch Brook from its mouth at the confluence with Peckman River upstream through the Township of Little Falls and Borough of West Paterson: Taylor Brook and a small Tributary of Peckman River, each from their mouths at the confluence with Peckman River upstream within the Township of Cedar Grove; Wabash Brook from its mouth at the confluence with the Passaic River upstream to the Garden State Parkway;	
		Weasel Brook from the Passaic City Boundary upstream to Rutgers Place; Plog Brook from its mouth at the confluence with the Weasel Brook upstream to Van Houten Avenue; and Weasel Brook Branch No. 3-5-2 from its mouth upstream to Athena Avenue and a small tributary of Weasel Brook upstream to the Garden State Parkway and within the City of Clifton. The proposed delineation affects Cedar Grove Township, Clifton City, Elmwood Park Borough, Fair Lawn Borough, Garfield City, Glen Rock Borough, Haledon Borough, Hawthorne Borough, Little Falls Township, North Haledon Borough,	

Paterson City, Prospect Park Borough, Totowa Borough, Verona Borough and West Paterson Borough in the Counties of Bergen, Essex and Passaic.

(f) A list of delineated streams within West Milford Township, Ringwood and Wanaque Boroughs, in Passaic County follows:

Council Adoption Date	Stream	Limits	Type
1. 10-18-79	Wanaque River, Post Brook and its No. 1 and No. 2 Branches, Meadow Brook and its No. 2 Branch, Stephans Lake Brook and its No. 1 and No. 2 Branches, High Mountain Brook, Erskine Brook, Cupsaw Brook and its No. 1, No. 2, No. 3 and No. 4 Branches, Ringwood Creek and its No. 1 Branch, West Brook, Burnt Meadow Brook and its No. 5 Branch, Longhouse Creek, Green Lake, Belcher Creek and its No. 1 Branch, Cooley Brook, Green Brook, Belcher Creek Branch No. 2, Moorestown Brook, Pequannock River, Post Brook and its No. 3 and	Wanaque River from the Pompton Lakes-Wanaque Borough Boundary line upstream to West Milford Township-Ringwood Borough Boundary line; Post Brook from the Pompton Lakes-Wanaque Borough Boundary line upstream to the Bloomingdale-Wanaque Borough Boundary line; Post Brook Branch No. 1 from its mouth upstream to the Bloomingdale-Wanaque Borough Boundary line; Post Brook Branch No. 2 from its mouth upstream 3,200 feet; Meadow Brook from its mouth at the confluence with the Wanaque River upstream to the head of Upper Skyline Lake; Meadow Brook Branch No. 2 from its mouth upstream to the head of Hidden Valley Lake; Stephans Lake Brook from its mouth at the confluence with Meadow Brook upstream 11,940 feet to the head of a small lake; Stephans Lake Brook Branch No. 1 from Conklintown Road upstream 1,400 feet; Stephans Lake	1

	No. 4 Branches, West Brook and its No. 7 Branch.	Brook Branch No. 2 from its mouth to its headwaters; High Mountain Brook from its mouth at the confluence with Meadow Brook upstream 14,150 feet; Erskine Brook from its mouth at the Wanaque Reservoir upstream to the head of Upper Lake Erskine; Cupsaw Brook from its mouth at the Wanaque Reservoir upstream to Kraft Place, Cupsaw Brook Branch No. 1 from its mouth upstream to Kendall Drive, Cupsaw Brook Branches Nos. 2 and 3 each from its mouth upstream to Skylands Road and Cupsaw Brook Branch No. 4 from its mouth upstream 1,760 feet; Ringwood Creek from its mouth at the Wanaque Reservoir upstream to Farm Road and Ringwood Creek Branch No. 1 from its mouth upstream to Sloatsburg Road; West Brook from its mouth at the Wanaque Reservoir upstream to the West Milford Township-Ringwood Borough Boundary; Burnt Meadow Brook from its mouth at the	

Council Adoption Date	Stream	Limits	Type
		confluence with West Brook upstream to the West Milford Township-Ringwood Borough Boundary, and Burnt Meadow Brook Branch No. 5 from its mouth upstream 2,450 feet; all within Ringwood and Wanaque Boroughs, in the County of Passaic; Longhouse Creek from the New York-New Jersey Boundary upstream to the head of Bearfoot Waters; Greenwood Lake, Belcher Creek from	

its mouth at Greenwood Lake upstream to Union Valley Road; Belcher Creek Branch No. 1 from its mouth upstream to Union Valley Road, Cooley Brook from its mouth at the confluence of Belcher Creek upstream 440 feet, Green Brook from its mouth at the confluence of Cooley Brook upstream to Union Valley Road, Belcher Creek Branch No. 2 from its mouth upstream 8,100 feet; Moorestown Brook from its mouth at the confluence of Belcher Creek upstream to the head of Carpi Lake; Pequannock River from the Bloomingdale Borough, West Milford Township Boundary upstream to Macopin Intake; Post Brook from the Bloomingdale Borough, West Milford Township Boundary to upstream from Algonguin Water Lake, Post Brook Branch No. 3 from its mouth upstream 5,600 feet and Post Brook Branch No. 4 from its mouth upstream to Shady Lake; West Brook from the Lower Mt. Glen Lake Spillway upstream to the head of Indian Train Lake and West Brook Branch No. 7 from its mouth upstream to the head of Linday Lake; all in the Township of West Milford, County of Passaic.

(g) A list of delineated streams in the Saddle River follows:

Council
Adoption

Date	Stream	Limits	Type
1. 8-20-29	Saddle River, Coalberg Brook and its Tributary, Sprout Brook, Beaver Dam Brook, Jordan Brook, Hohokus Brook, Ramsey Brook, Valentine Brook and its No. 1 and No. 2 Tributaries, Valentine Brook Tributary No. 2, Darlington Brook Tributary and Masonicus Brook.	Saddle River from its mouth at the confluence with the Passaic River through Wallington Borough and from the downstream boundary of Saddle Brook Township upstream through the Borough of Fair Lawn; Coalberg Brook from its mouth at the confluence with Saddle River upstream to Route 46; and its Tributary from its mouth upstream to Route 46; Sprout Brook from its mouth at the confluence with Saddle River through Rochelle Park Township; Beaver Dam Brook from its mouth at the confluence with Saddle River upstream to Van Duren Avenue; Jordan Brook from its mouth at the confluence with Saddle River upstream to Berdan Avenue, and Hohokus Brook from its mouth at the confluence with Saddle River upstream through Glen Rock Borough; Ramsey Brook from the downstream Ramsey Borough Boundary upstream to Route 17; Valentine Brook from the downstream Ramsey Borough Boundary to upstream from Darlington Avenue; Valentine Brook Tributary No. 1 from its mouth upstream to Darlington Avenue; Valentine Brook Tributary No. 2 from its mouth upstream to East Main Street; Darlington Brook Tributary and Masonicus Brook each through Ramsey Borough.	1
2.	Saddle River, Ho-Ho-Kus Brook, Sprout Brook, Manning Brook, Herring Brook, Behnke Brook, Goffle Brook, Ramapo and Mahwah Rivers, Masonicus Brook	Saddle River from the Confluence of Ho-Ho-Kus Brook upstream to approximately 525 feet downstream of Bogert Road; Ho-Ho-Kus Brook from Grove Street, upstream to the upstream corporate boundary of Ridgewood and Wadwick, approximately 300 feet downstream from Wyckoff Road; Sprout Brook from Plaza Way in	

Council Adoption Date	Stream	Limits	Type
		Paramus upstream to the confluence of Manning Brook from its mouth upstream to Van Binsberger Boulevard in Paramus; Herring Brook from its mouth to approximately 130 feet upstream of Route 4 in Paramus; Behnke Brook from its mouth to Midland Avenue in Paramus; Goffle Brook for the entire reach in Ridgewood, from Rock Road to 130 feet downstream of Lake Street; the Ramapo and Mahwah Rivers for the entire reaches within Mahwah Borough and Masonicus Brook from its mouth upstream to approximately 60 feet upstream of Constantine Drive.	

(h) A list of delineated streams in the Hackensack Basin follows:

The floodway and flood hazard area of Saddle River for the entire reach within South Hackensack Township, Hackensack River from 400 feet upstream of the New Jersey Turnpike at the South Hackensack-Little Ferry corporate limit upstream to approximately 1,900 feet upstream of River Edge Road in River Edge Borough, Bellman's Creek from approximately 700 feet downstream of N.Y. Central Rail Road upstream to the confluence of Wolf Creek, Wolf Creek from its mouth upstream to approximately 30 feet downstream of Elite Court, Losen Slofe from its mouth upstream to Moonachie Road, Frenches Creek from its mouth upstream to New Bridge Road, Coles Brook from its mouth upstream to Catalpa Avenue, Van Saun Mill Brook from its mouth upstream to approximately 1,100 upstream of Continental Avenue, Overpeck Creek from its mouth upstream of East Hudson Avenue, Teaneck Creek from its mouth upstream to approximately 650 feet downstream of Fycke Lane, Metzler Creek for the entire reach within Englewood and Teaneck, Tributary No. 1 to Overpeck Creek from its mouth upstream to Thompson Avenue, and Flat Rock Brook from its mouth upstream to Middlesex Avenue.

(i) A list of delineated streams in the Central Passaic Basin follows:

The floodway and flood hazard area of the Passaic River from Beatties Dam upstream to the Borough of Fairfield—Township of West Caldwell municipal boundary, Deepavaal Brook from the confluence with the Passaic River upstream to Clinton Road Bridge, Green Brook from the confluence with Deepavaal Brook upstream to Mountain Avenue, Singac Brook from the junction with Passaic River upstream to 6,300 feet upstream of Valley Road, Naachtpunkt Brook from the junction with Singac Brook upstream to Totowa Road, Pompton River from junction with Passaic River upstream to confluence with the Pequannock and Ramapo River, Beaver Dam Brook from the confluence with Pompton River upstream to Lincoln Park, Montville municipal boundary, East Ditch from the confluence with Beaver Dam Brook upstream to Mountain Avenue, West Ditch from the confluence with Beaver Dam Brook to 2,000 feet upstream of Sunset Road, Ramapo River upstream from the Pequannock River—Ramapo-Pompton River junction to the Oakland—Mahwah municipal boundary, Allerman Brook (Pond Run) from the junction with the Ramapo River upstream to Oakland-Franklin Lakes municipal boundary, Acid Brook from the junction with the Ramapo River upstream to railroad tracks, Pequannock River from the Pequannock River—Ramapo-Pompton River junction to the Butler-Bloomingdale-West Milford municipal boundary, Wanaque River from the Pequannock River to the Pompton Lakes-Wanaque municipal boundary, Stone House Brook from confluence with Pequannock River upstream to 3,100 feet upstream of Route 23, Van Dam Brook from confluence with Pequannock River upstream to 750 feet upstream from Knools Road, Cold Spring Brook from confluence with Pequannock River upstream 1600 feet upstream of West Shore Road, Oakwood Lake Brook from confluence with Pequannock River upstream to Glen Wild Revenue, Post Brook and Tributaries from the junction with Wanque River upstream to Lake Ioscoe.

OFFICE OF ADMINISTRATIVE LAW NOTE: Maps concerning delineated floodways have been filed with the Office of Administrative Law as part of the adopted rules beginning with 1981 adoptions. These maps are not reproduced in the Code, but may be reviewed at the Office of Administrative Law, Filings Section, Quakerbridge Plaza, Building No. 9, Trenton, New Jersey 08625.